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The Global Economy, Rising Risk and Marine Insurance Markets

Risk and Reward in a Troubled World

San Francisco Board of Marine Underwriters

San Francisco, CA

May 1, 2014

Download at www.iii.org/presentations

Robert P. Hartwig, Ph.D., CPCU, President & Economist

Insurance Information Institute ♦ 110 William Street ♦ New York, NY 10038

Tel: 212.346.5520 ♦ Cell: 917.453.1885 ♦ bobh@iii.org ♦ www.iii.org

Outlook: Property/Casualty

- **Modest growth will continue in 2014 (~ 4.5% DPW)**
  - Exposure growth tied primarily to overall GDP growth/key sector drivers
  - Rates remain in positive territory though more concern for commercial lines in second half of the year
- **Underlying loss cost trends remain manageable**
- **Very well capitalized**

Personal Lines: Stable
Commercial Lines: Negative
Reinsurance: Stable

- **For primary insurers, falling reinsurance pricing and alternative capital are benefits**
- **Traditional reinsurers challenged by continued entry of new capital and accumulation of "organic" capital**
- **Regulatory/Legislative concerns manageable**
  - TRIA, Systemic risk, FIO & general federal "intrusions"

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Risk & Insurance

U.S. and Global Perspective

Marine Insurance Is Very Sensitive to the Global Economic and Political Environment

5 Major Categories for External Global Risks, Uncertainties and Fears: Insurance Solutions

1. **Economic Risks**
2. **Geopolitical Risks**
3. **Environmental Risks**
4. **Technological Risks**
5. **Societal Risks**

While risks can be broadly categorized, none are mutually exclusive

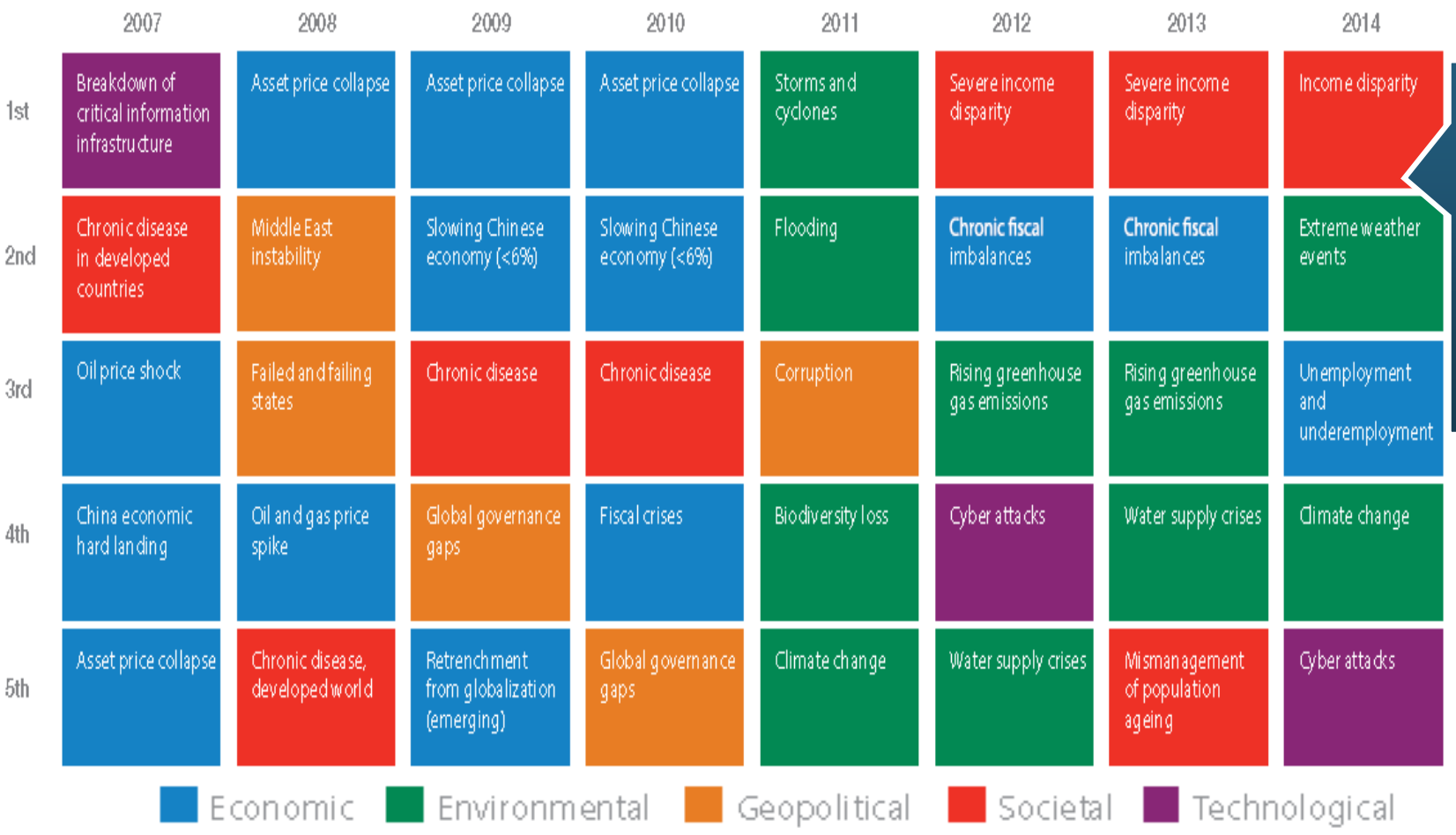
Source: Adapted from World Economic Forum, *Global Risks 2014*; Insurance Information Institute.

Multitude of Exogenous Factors Influence Growth, Performance & Cyclicality

- Economic Issues in US, Europe
- Weakness in China/Emerging Economies
- Political Upheaval in the Ukraine, Middle East
  - Argentina, Venezuela, Thailand
  - →Trade sanctions (e.g., Iran, Russia)
- Political Gridlock in the US, Europe, Japan
- Fiscal/Monetary Imbalances/Low Interest Rates
- Unemployment
- Resurgent Terrorism Risk
- Cyber Attacks
- Sabre Rattling (e.g., US-China, China-Japan)
- Severe Natural Disaster Losses
- Climate Change/Sea Level Rise
- Environmental Degradation
- (Over)Regulation: Systemic Risk?

Are "Black Swans" everywhere or does it just seem that way?

Top 5 Global Risks in Terms of *Likelihood*, 2007—2014: Insurance Can Help With Most

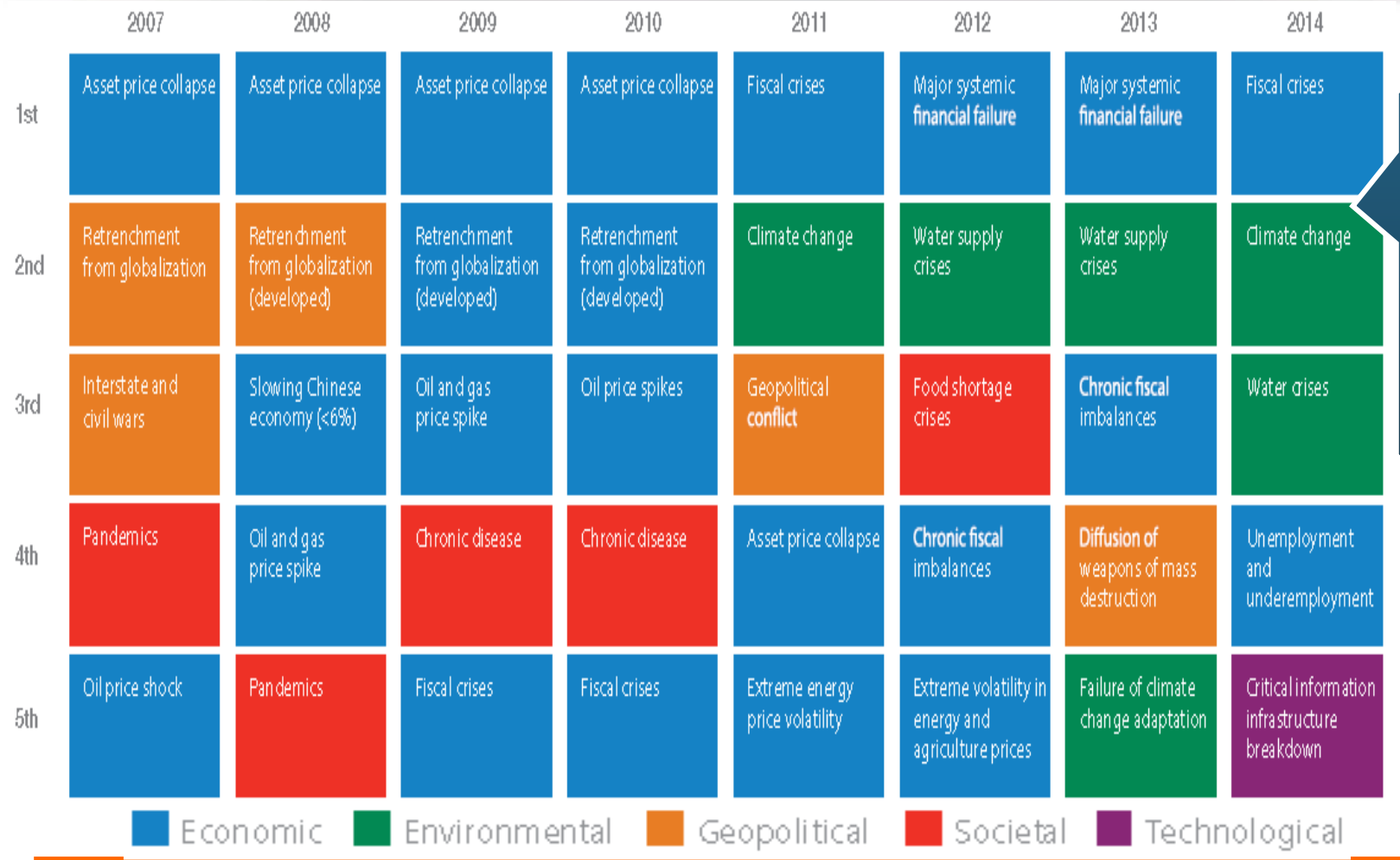


In 2014, societal and environ-mental issues dominated frequency concerns

Concerns Shift Considerably Over Short Spans of Time. 2014 Includes a Mix of Environmental Economic, Social and Environmental Risks

Source: World Economic Forum, *Global Risks 2014*; Insurance Information Institute.

Top 5 Global Risks in Terms of *Impact*, 2007—2014: Insurance Can Help With Most



In 2014, economic and environ-mental issues dominated severity concerns

Concerns Over the Impacts of Economics Risks Remained High in 2014, but Societal, Environment and Technological Risks Also Loom Large

Source: World Economic Forum, *Global Risks 2014*; Insurance Information Institute.

Gap Between Economic and Insured Losses: 1980—2013

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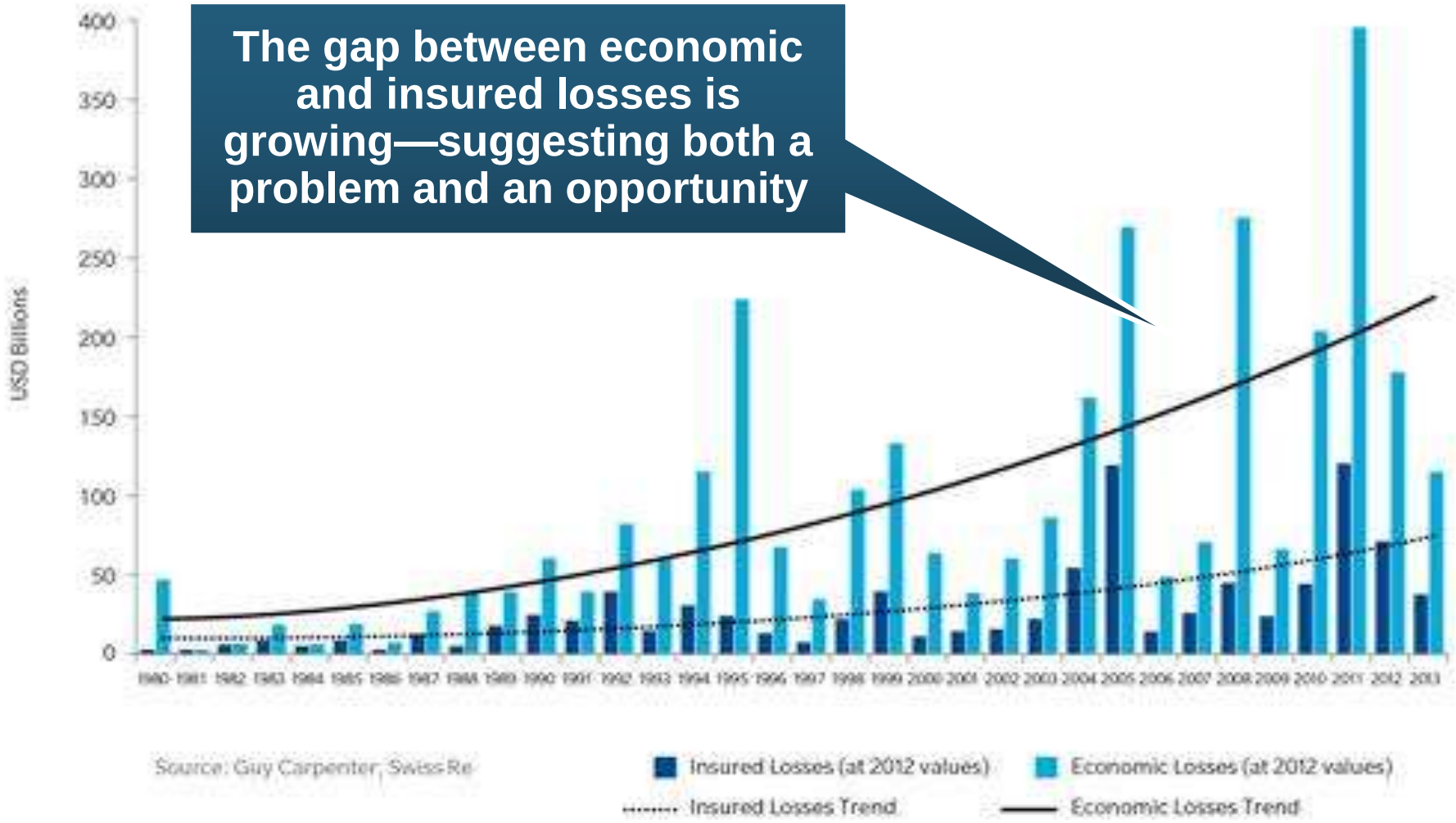

Sources: Guy Carpenter, Swiss Re; Insurance Information Institute .

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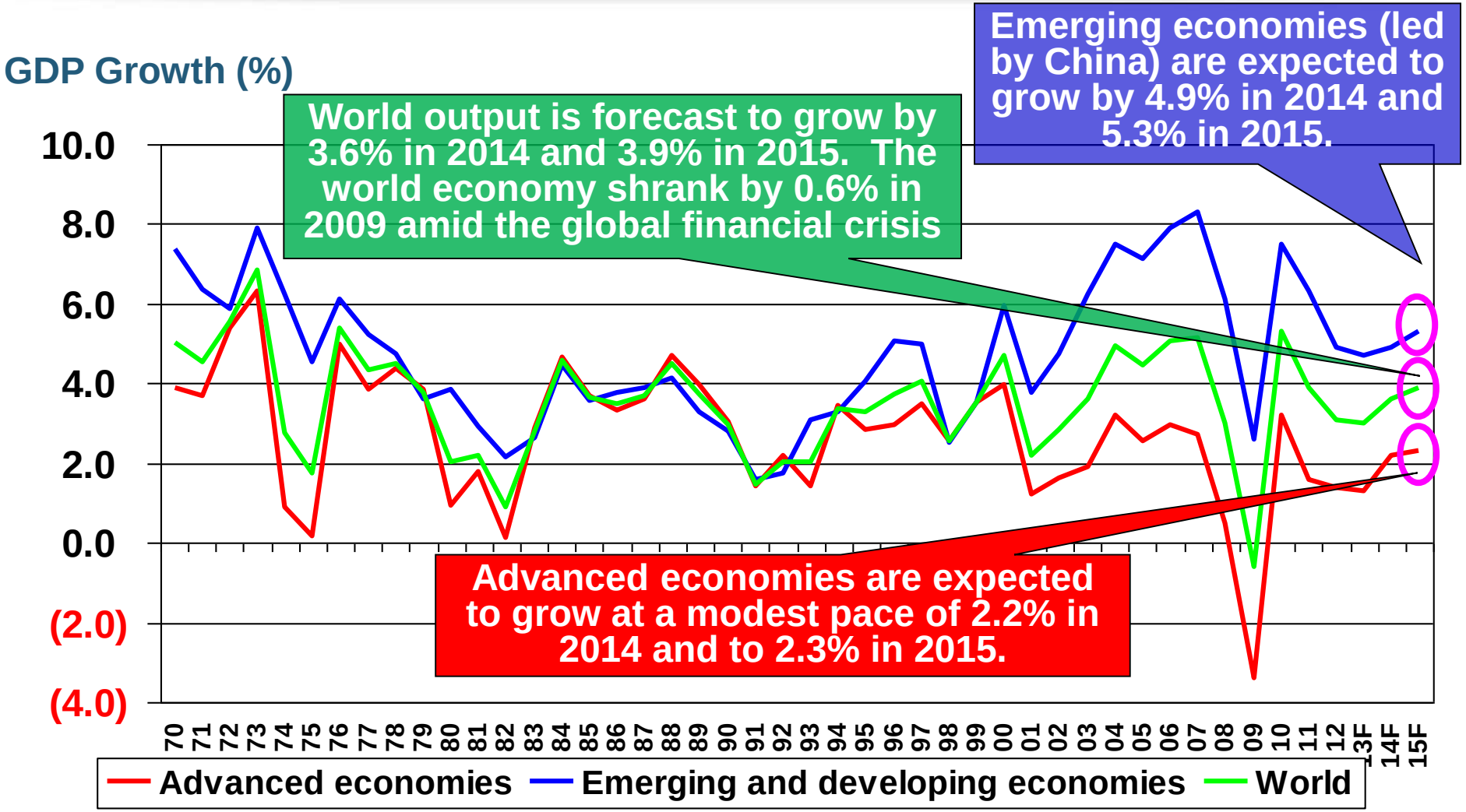
Globalization: The Global Economy Creates and Transmits Cycles & Risks

Globalization Is a Double Edged Sword—Creating Opportunity and Wealth But Potentially Creating and Amplifying Risk

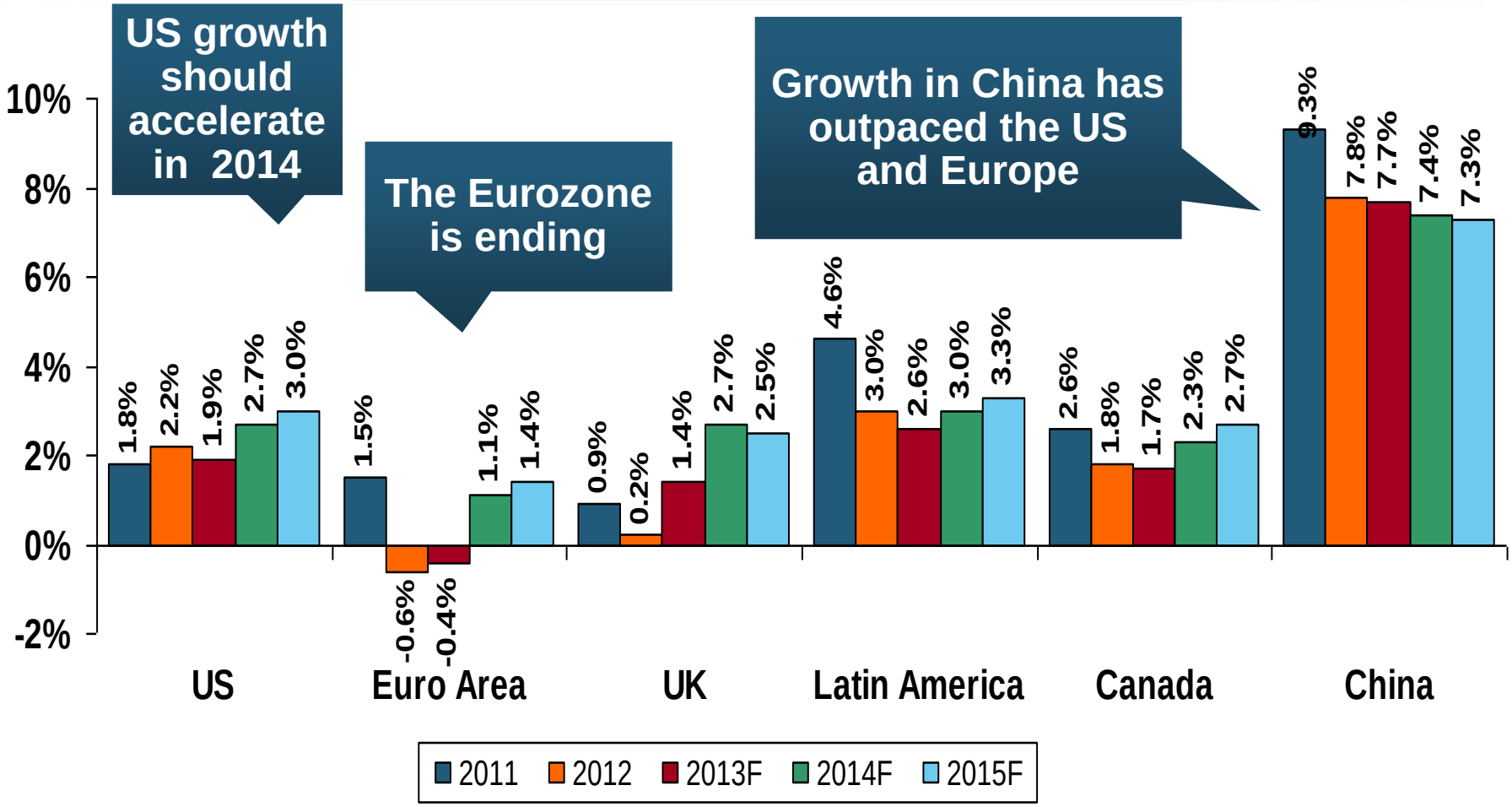
Emerging vs. "Advanced" Economies

GDP Growth: Advanced & Emerging Economies vs. World, 1970-2015F



Source: International Monetary Fund, *World Economic Outlook* , April 2014; Insurance Information Institute.

Real GDP Growth Forecasts: Major Economies: 2011 – 2015F



Growth Prospects Vary Widely by Region: Growth Returns to Most Areas Even as China Slows; Some strengthening in Latin America

Sources: Blue Chip Economic Indicators (4/2014 issue); IMF; Insurance Information Institute.

Real GDP Growth Forecasts: Selected Economies: 2011 – 2015F

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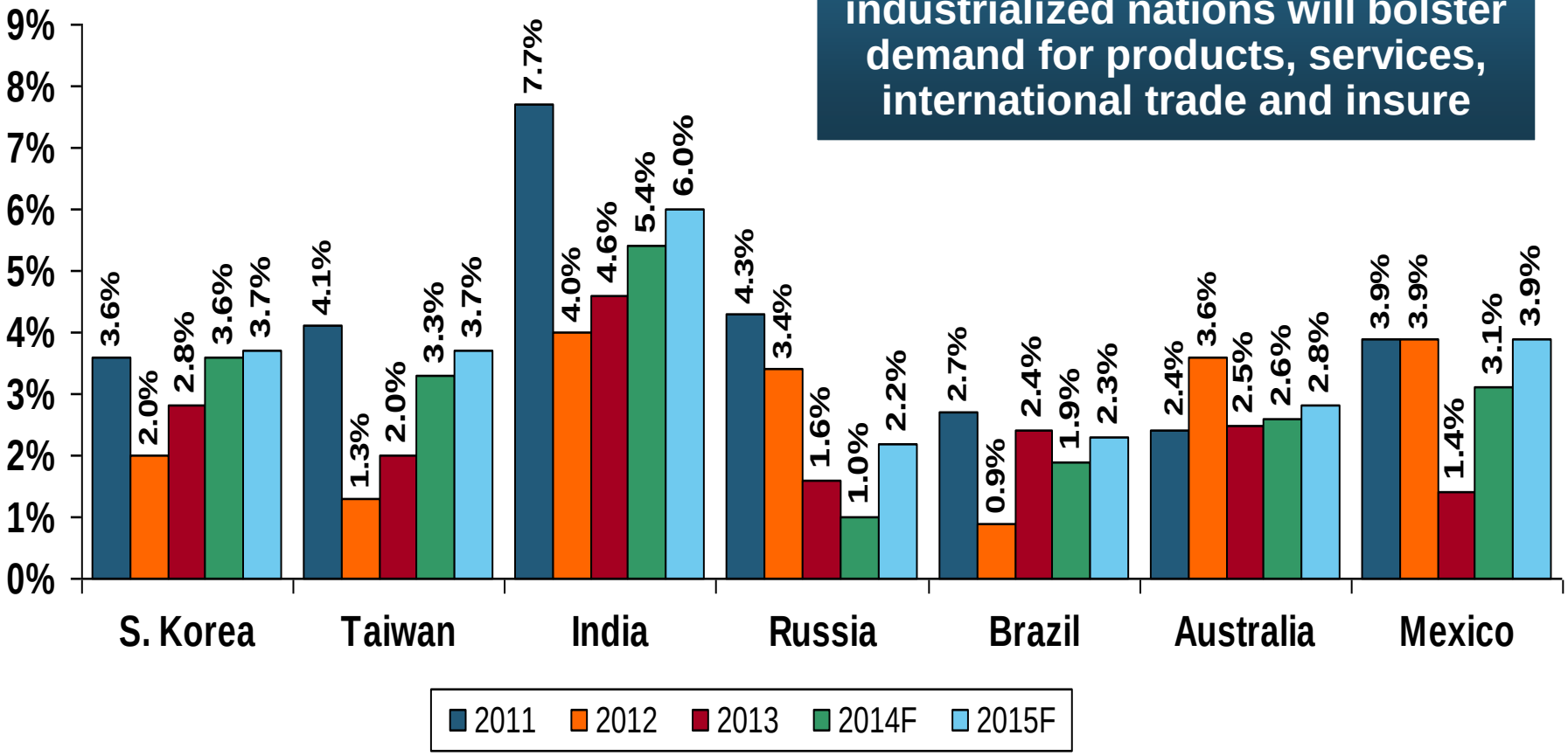
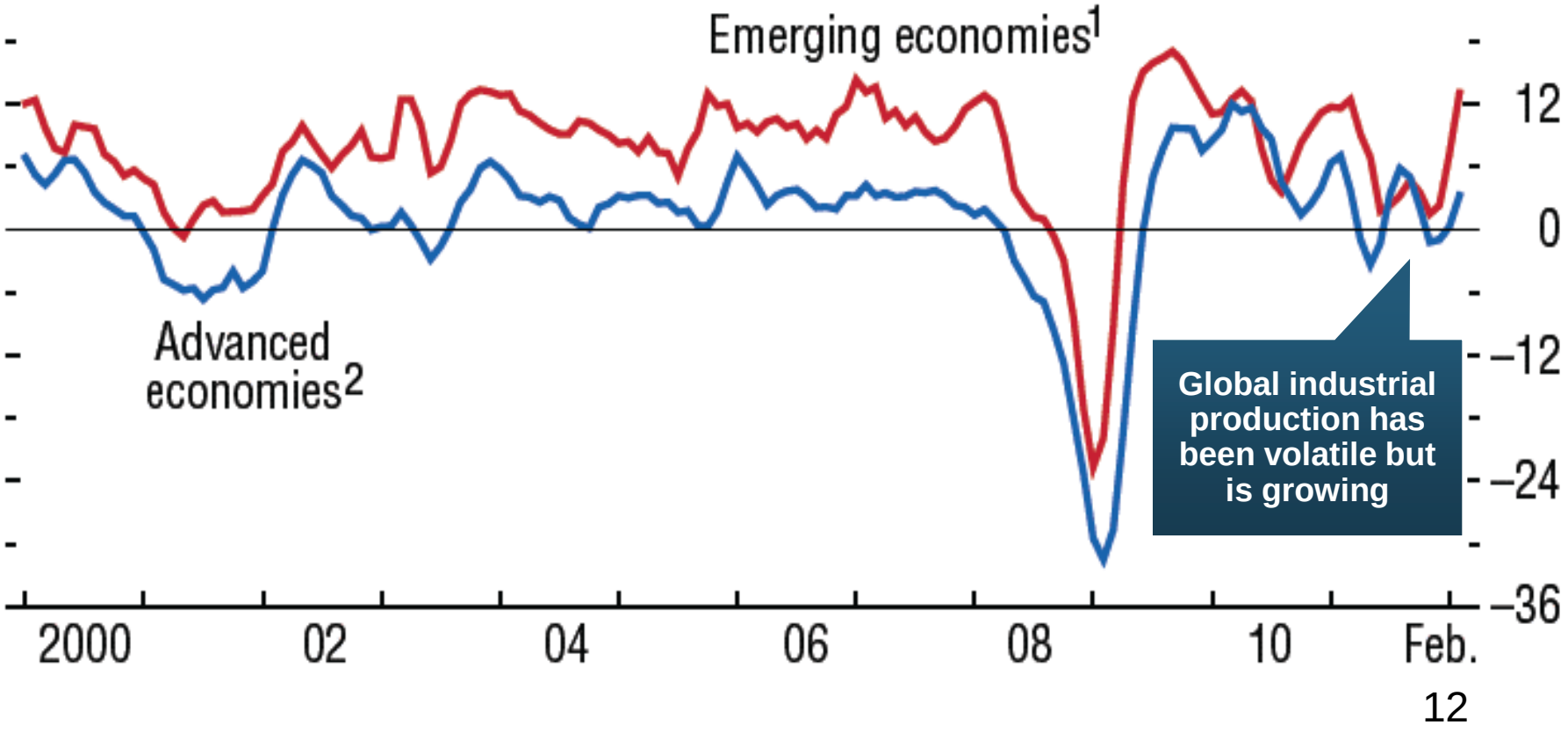
Strong economies in smaller industrialized nations will bolster demand for products, services, international trade and insure



Growth Is Expected Accelerate in Most of the World in 2014 and 2015

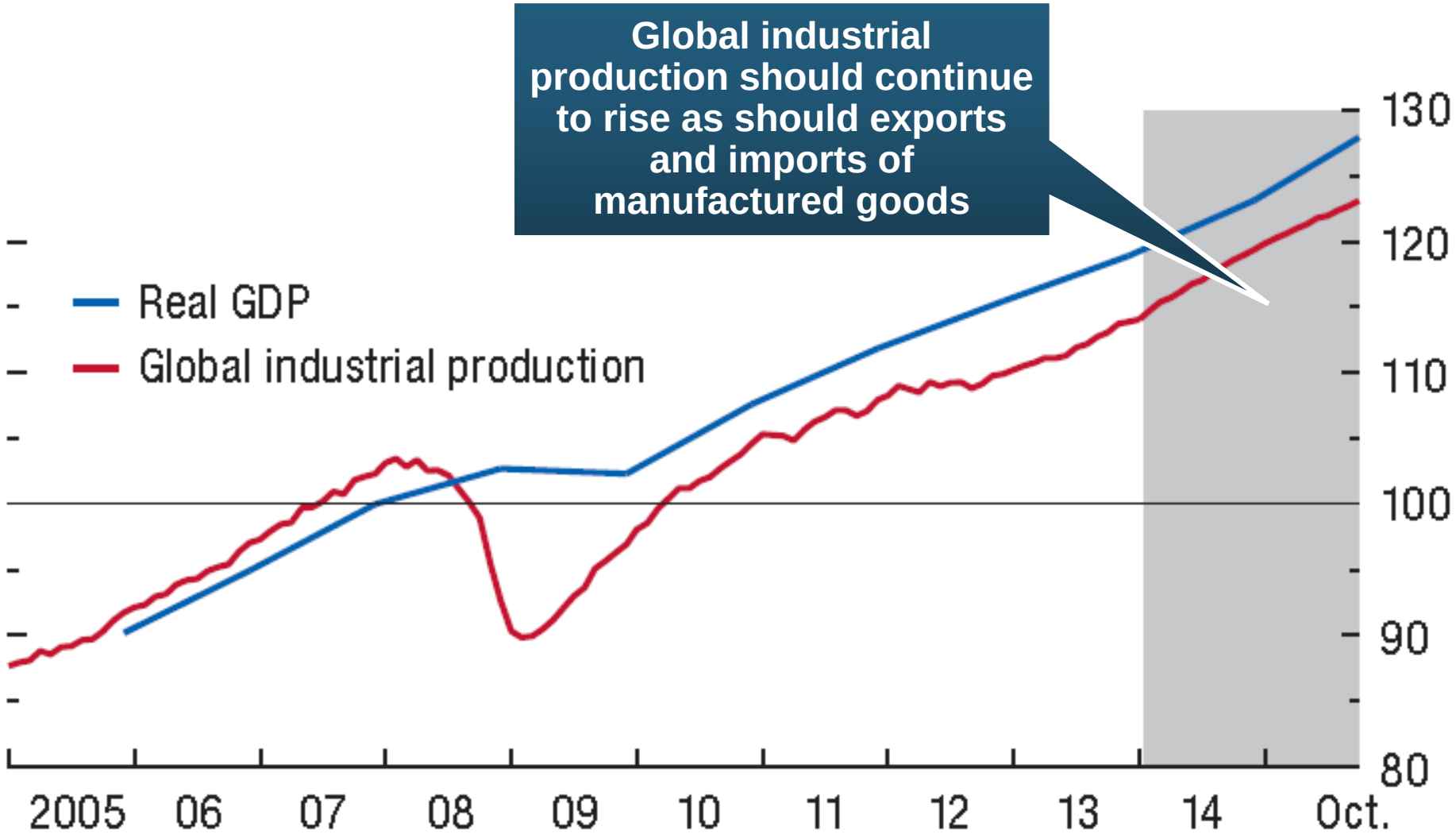
Sources: Blue Chip Economic Indicators (4/2014 issue); Insurance Information Institute.

Global Industrial Production (2000-Feb. 2012)



Source: IMF, World Economic Outlook, April 2012; Insurance Information Institute.

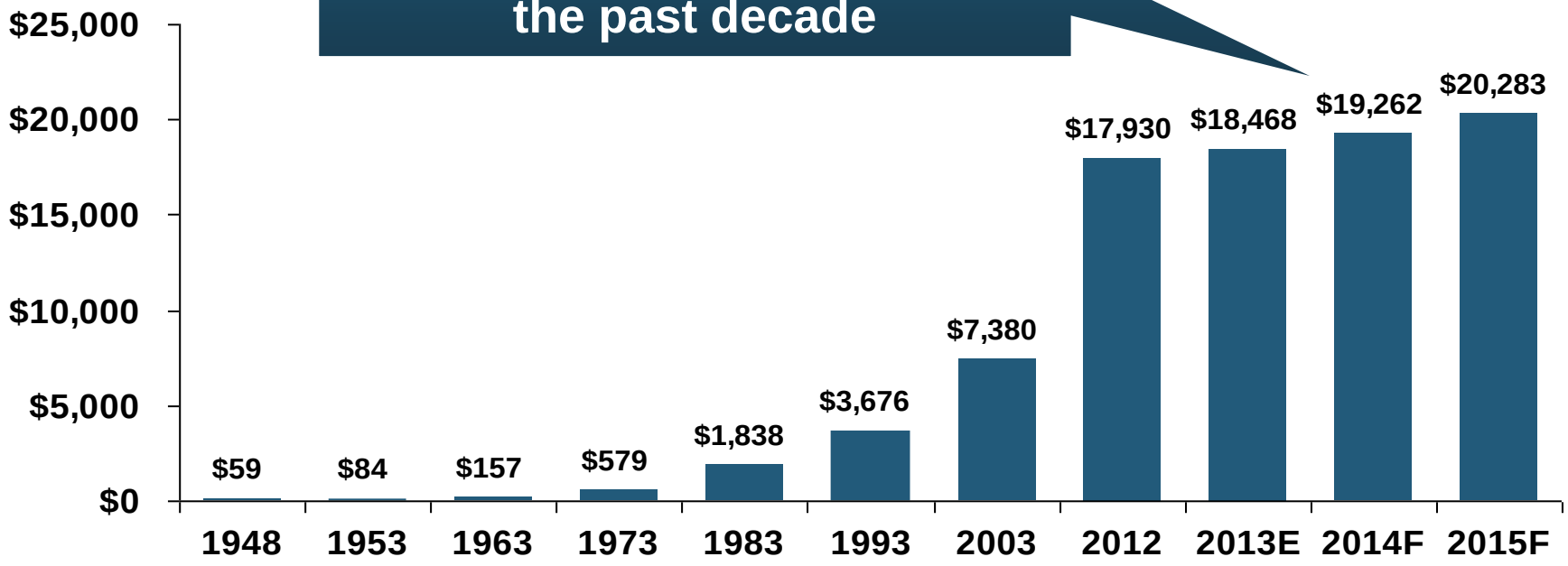
World GDP and Industrial Production (2005-Feb. 2015F)



Source: IMF, World Economic Outlook, April 2014; Insurance Information Institute.

World Trade Volume: 1948—2015F

Global trade volume will exceed $19 trillion in 2014, an increase of nearly 160% over the past decade



Insurance Regulation Will Necessarily Become More Transnational, Following Patterns of Global Economic Growth, the Creation of New Insurable Exposures and International Capital Flows

Sources: World Trade Organization data through 2012 from *International Trade Statistics 2013*; Insurance Information Institute estimates and forecasts for 2013-2015 based on IMF *World Economic Outlook* forecasts as of April 2014.

World Trade Volume Growth*, 2012 – 2015F

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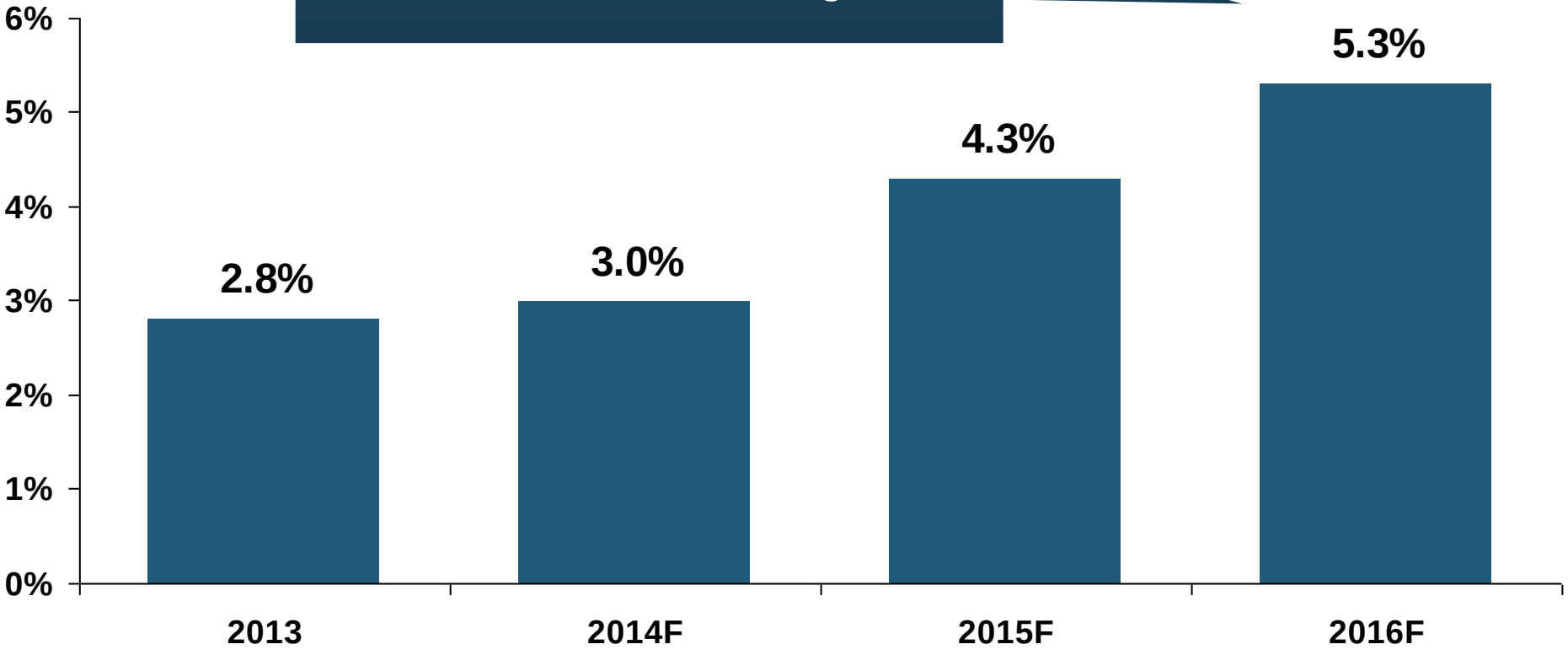
World trade volume growth is expected to accelerate modestly through 2015—translating into $2.25 trillion in net trade growth



*Goods and services.

Source: International Monetary Fund, *World Economic Outlook* , April 2014; Insurance Information Institute.

World Trade Volume: IMPORTS 2010 – 2015F

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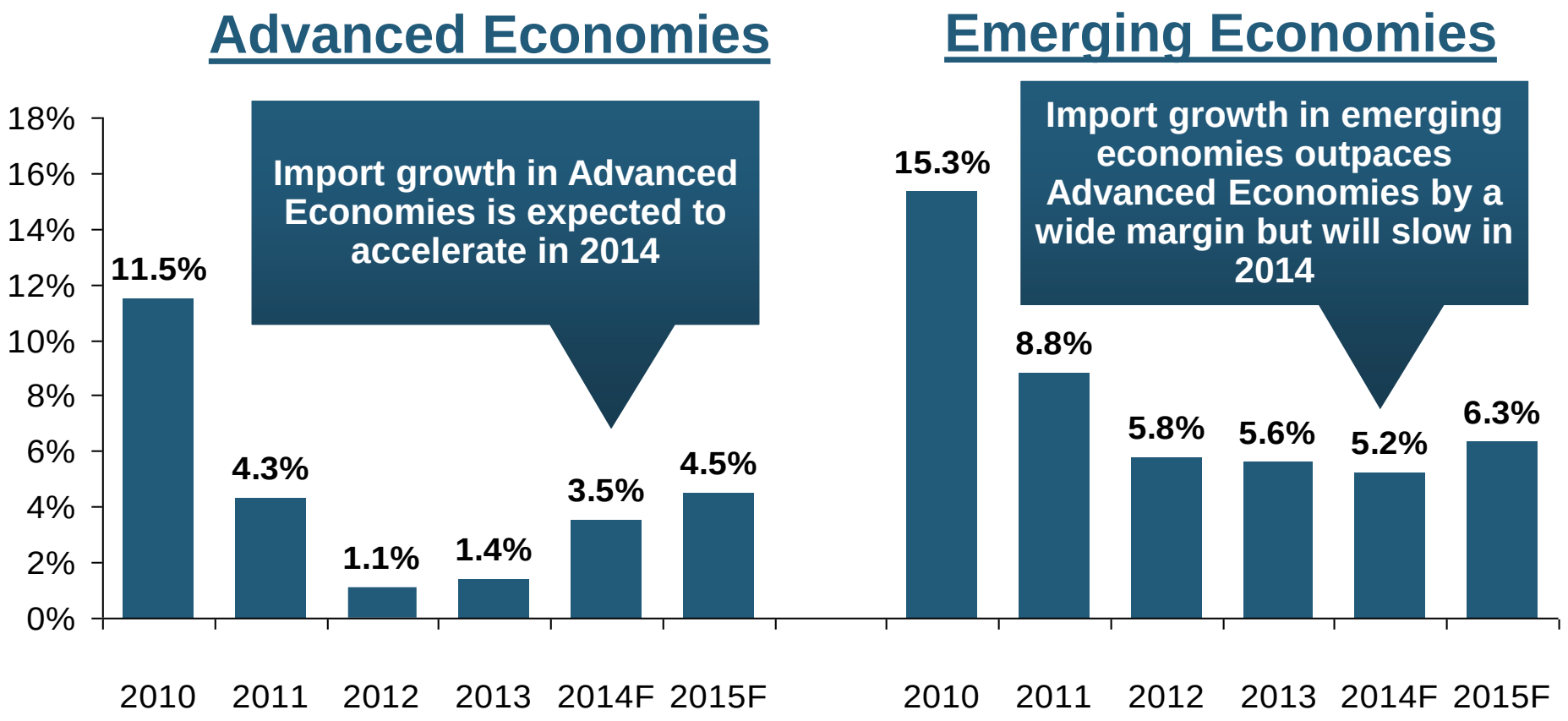
Growth (%)



Sources: IMF *World Economic Outlook* (April 2014); Insurance Information Institute.

World Trade Volume: EXPORTS 2010 – 2015F

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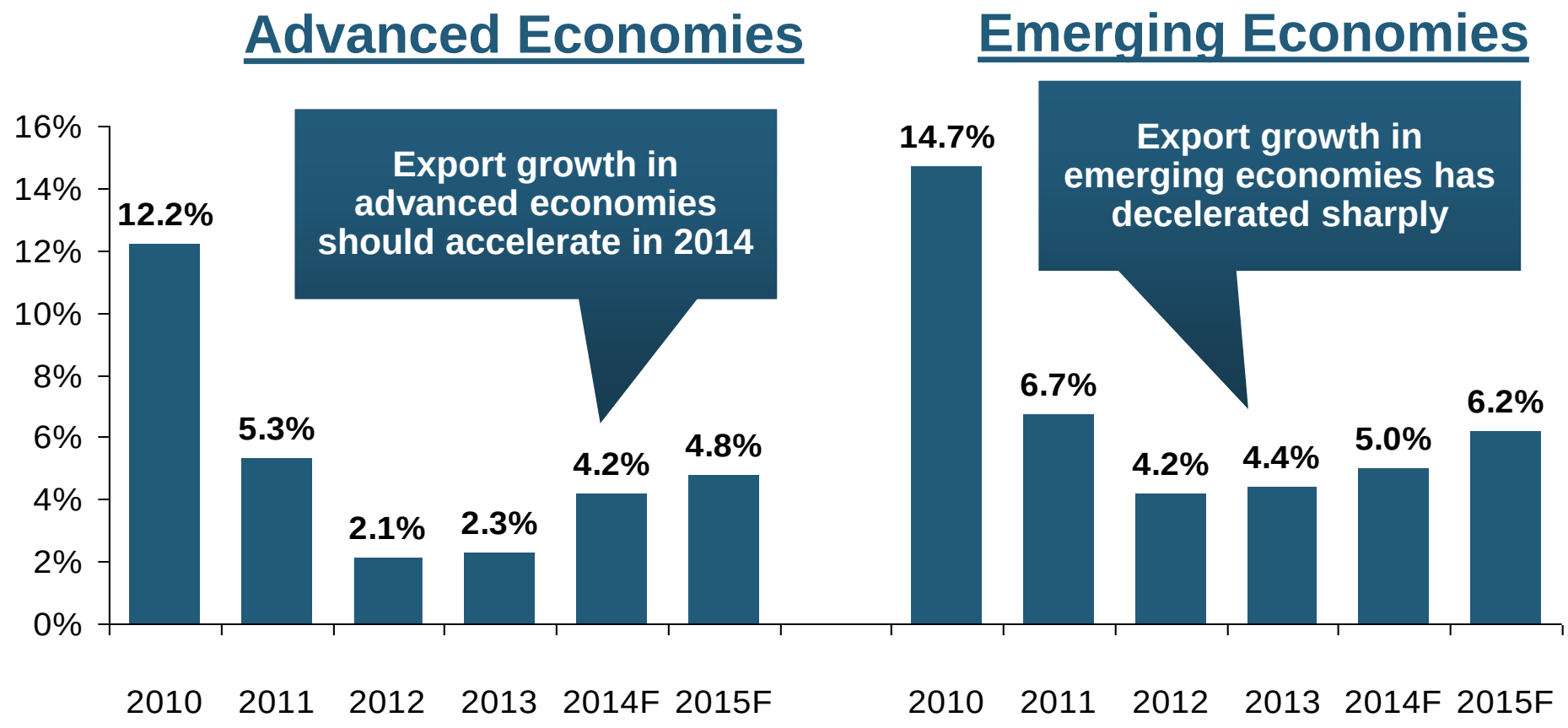
Growth (%)



Sources: IMF *World Economic Outlook* (April 2014); Insurance Information Institute.

Country Shares of World Merchandise Exports

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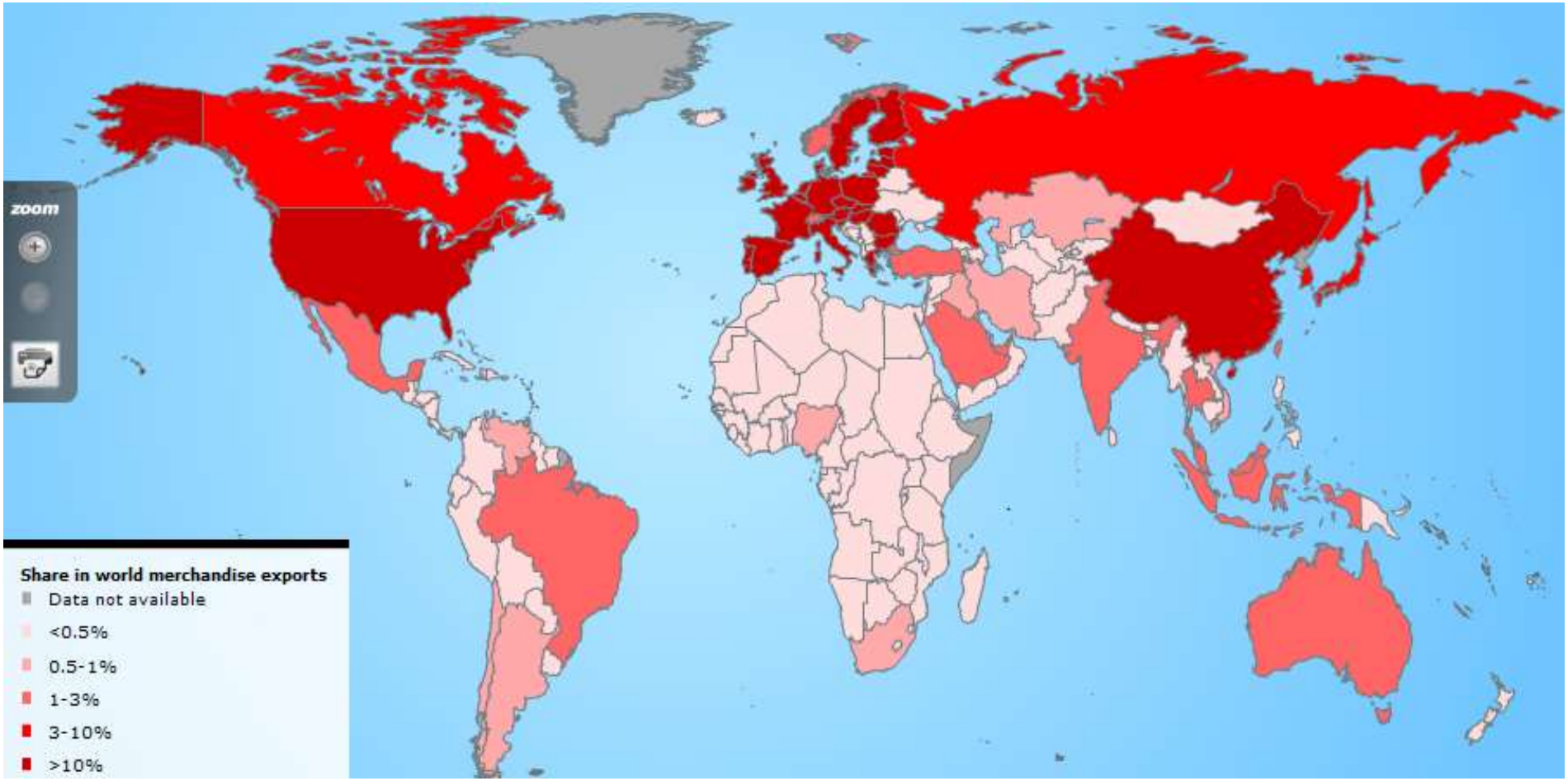
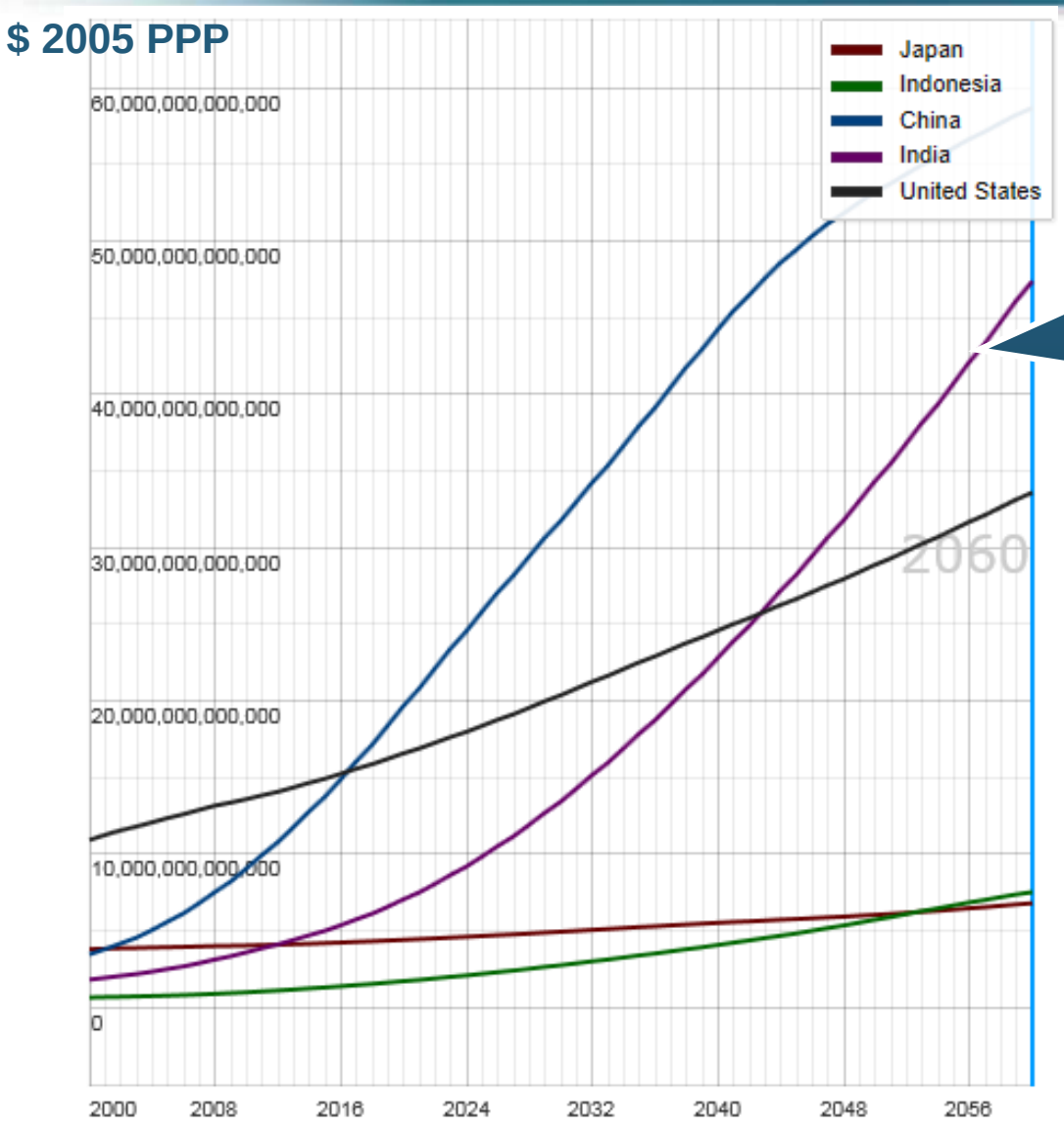
The US, China, Japan and Western Europe lead the world in merchandise exports



Source: World Trade Organization accessed 4/30/14 at: http://www.wto.org/english/res_e/statis_e/statis_e.htm ; Insurance Information Institute.

Potential Output of Total Economy: US, China, India, Indonesia and Japan, 2000-2060F



Growth in economic output will be concentrated in certain developing economies such as China and India

China will likely become the world's largest economy between 2025 and 2030

Source: OECD; Insurance Information Institute .

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Ocean Marine Overview

Vessel Losses Have Dropped though Underwriting Performance Remains Volatile

Ferry Sewol Sinking in South Korea Is One of the Greatest Maritime Tragedies in Recent History

The Sewol and Costa Concordia disasters will impact risk management in the maritime sector

Total Vessel Losses by Top 10 Regions: 2002 – 2013

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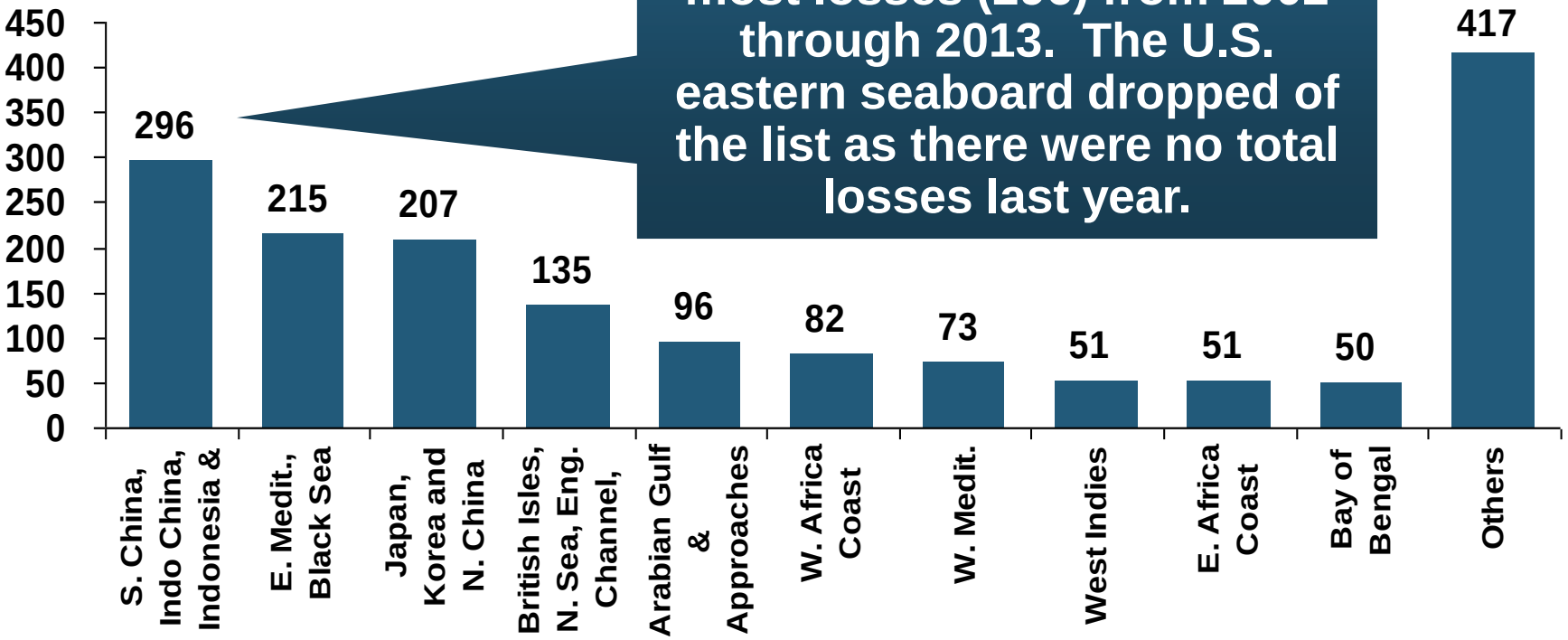
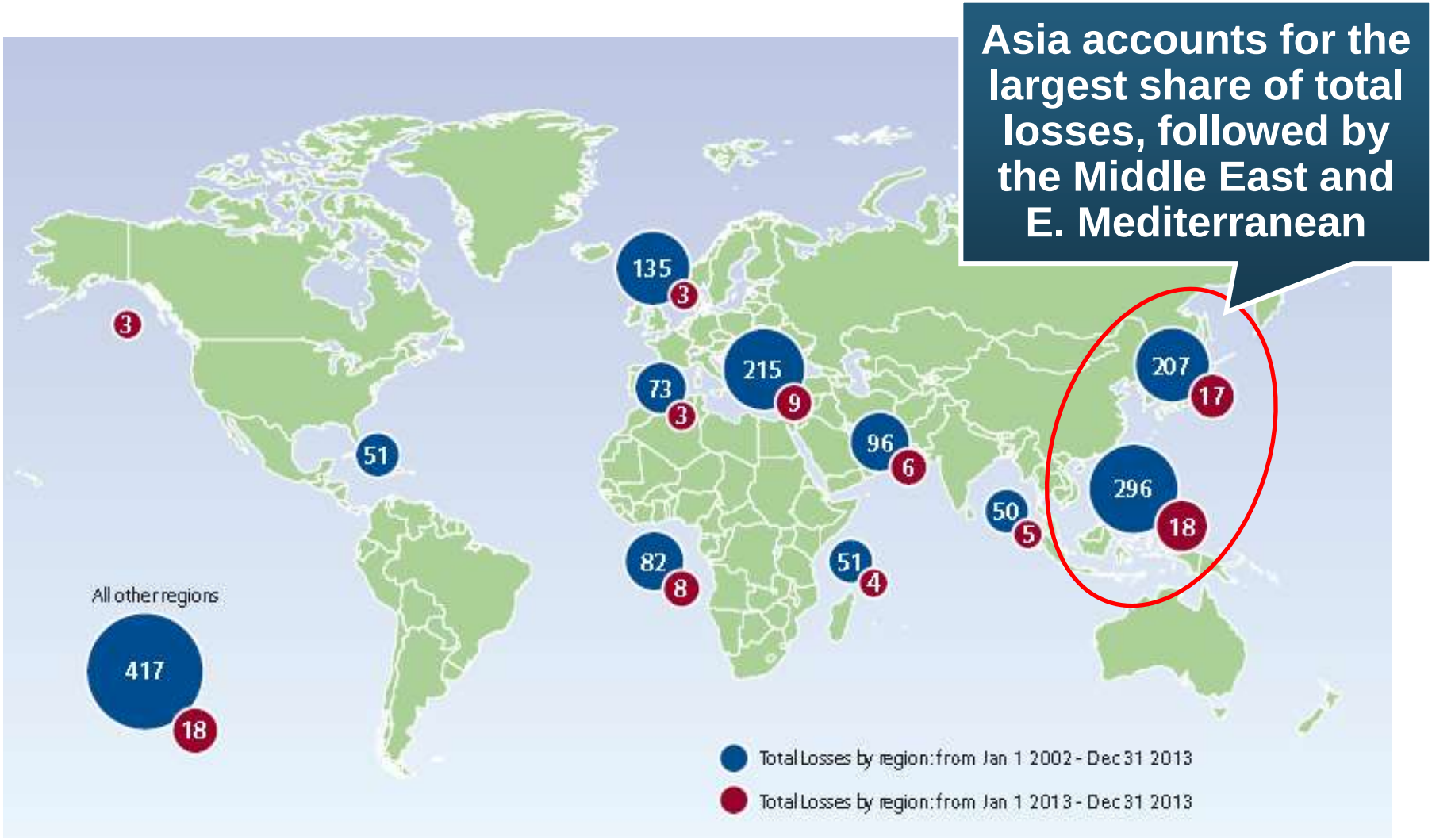
S. China, Indo China, Indonesia and the Philippines was the region that saw the most losses (296) from 2002 through 2013. The U.S. eastern seaboard dropped of the list as there were no total losses last year.



There were 1,673 total vessel losses from 2002 through 2013. The top 10 regions account for about 75% of all total losses

Sources: Lloyd's List Intelligence Casualty Statistics as published in *Safety and Shipping Review 2014,* Allianz Global Corporate and Specialty; Insurance Information Institute.

Country Shares of World Merchandise Exports



Sources: Lloyd's List Intelligence Casualty Statistics as published in *Safety and Shipping Review 2014,* Allianz Global Corporate and Specialty; Insurance Information Institute.

Total Vessel Losses by Year: 2002 – 2013

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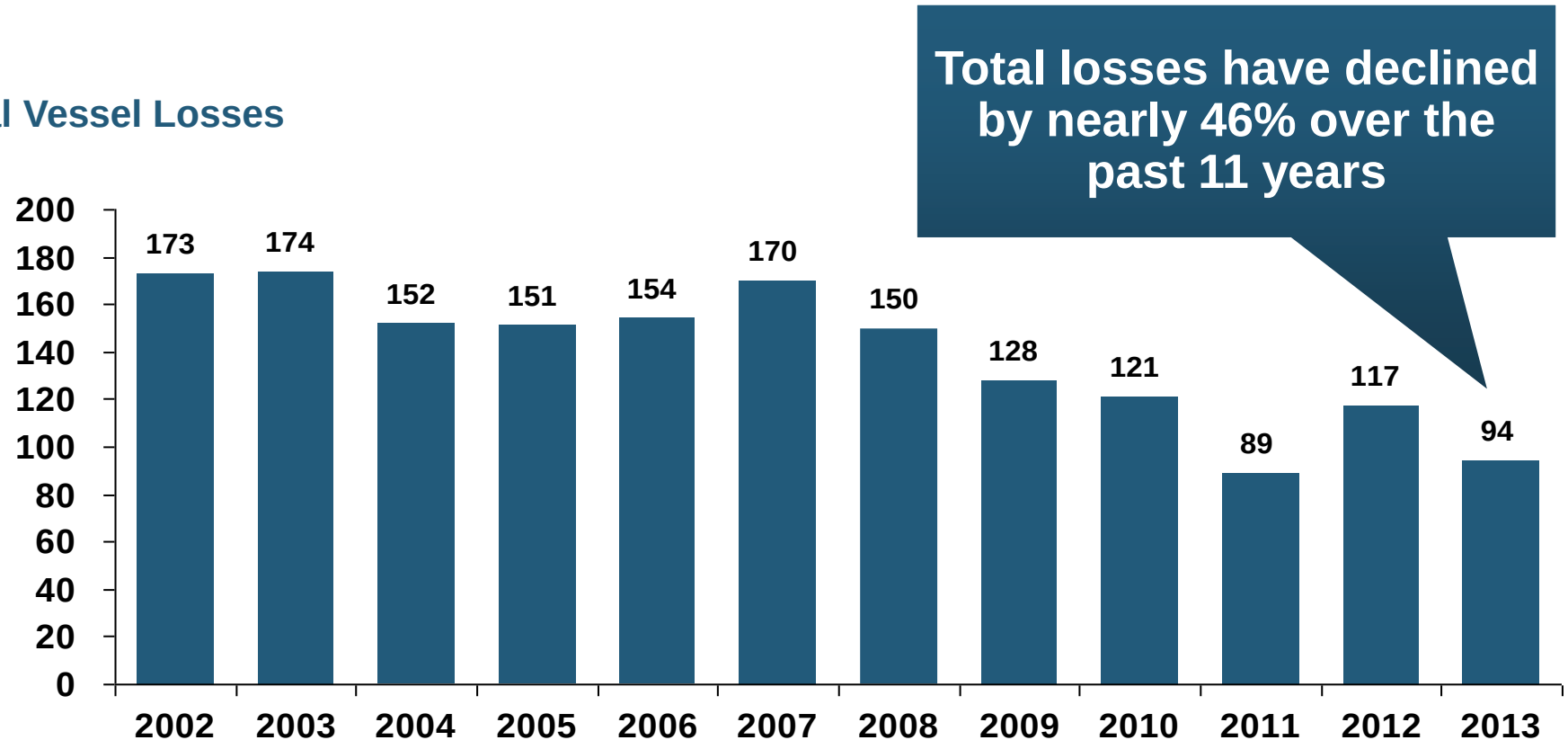
Total Vessel Losses



While total vessel losses are down sharply over the past decade, the question is whether this trend will continue

Sources: Lloyd's List Intelligence Casualty Service as published in *Safety and Shipping Review 2014,* Allianz Global Corporate and Specialty; Insurance Information Institute.

Total Vessel Losses by Top 10 Regions: 2013

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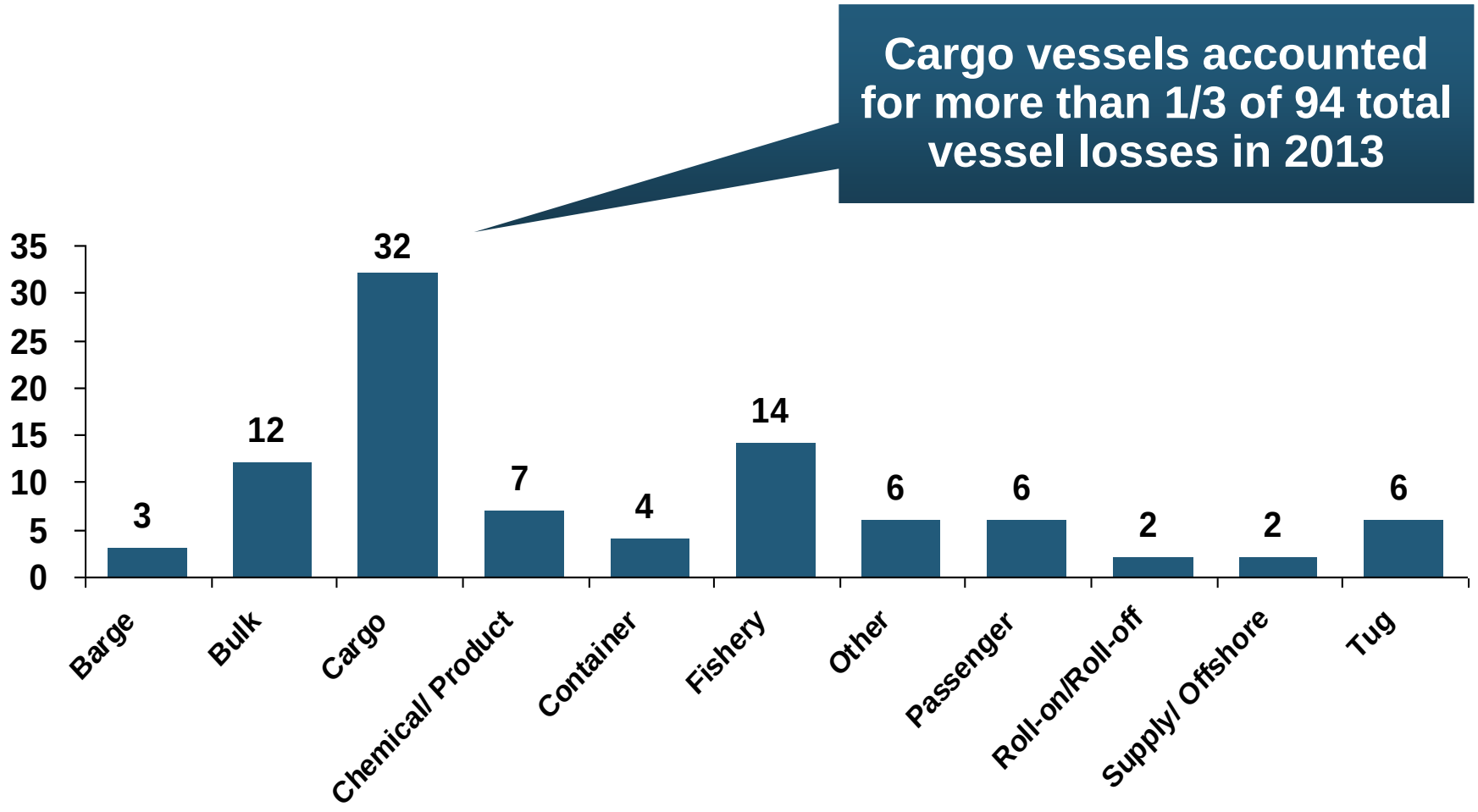
Total Vessel Losses

There were 94 total vessel losses in 2013—about 8 per month

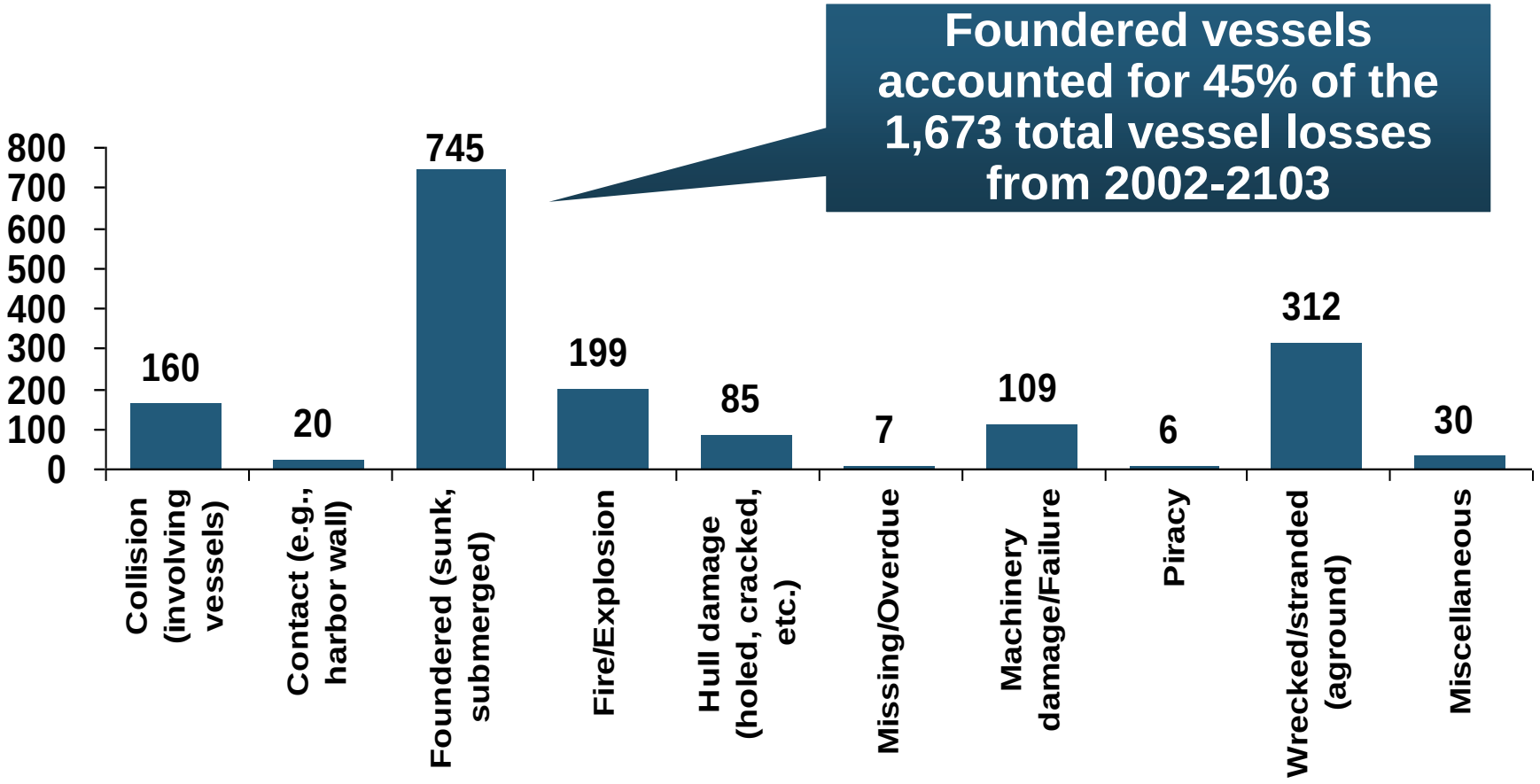
Sources: Lloyd's List Intelligence Casualty Statistics as published in *Safety and Shipping Review 2014,* Allianz Global Corporate and Specialty; Insurance Information Institute.

Total Losses by Type of Vessel: 2013



Sources: Lloyd's List Intelligence Casualty Statistics as published in *Safety and Shipping Review 2014,* Allianz Global Corporate and Specialty; Insurance Information Institute.

Causes of Total Losses: 2002 – 2013



Sources: Lloyd's List Intelligence Casualty Statistics as published in *Safety and Shipping Review 2014,* Allianz Global Corporate and Specialty; Insurance Information Institute.

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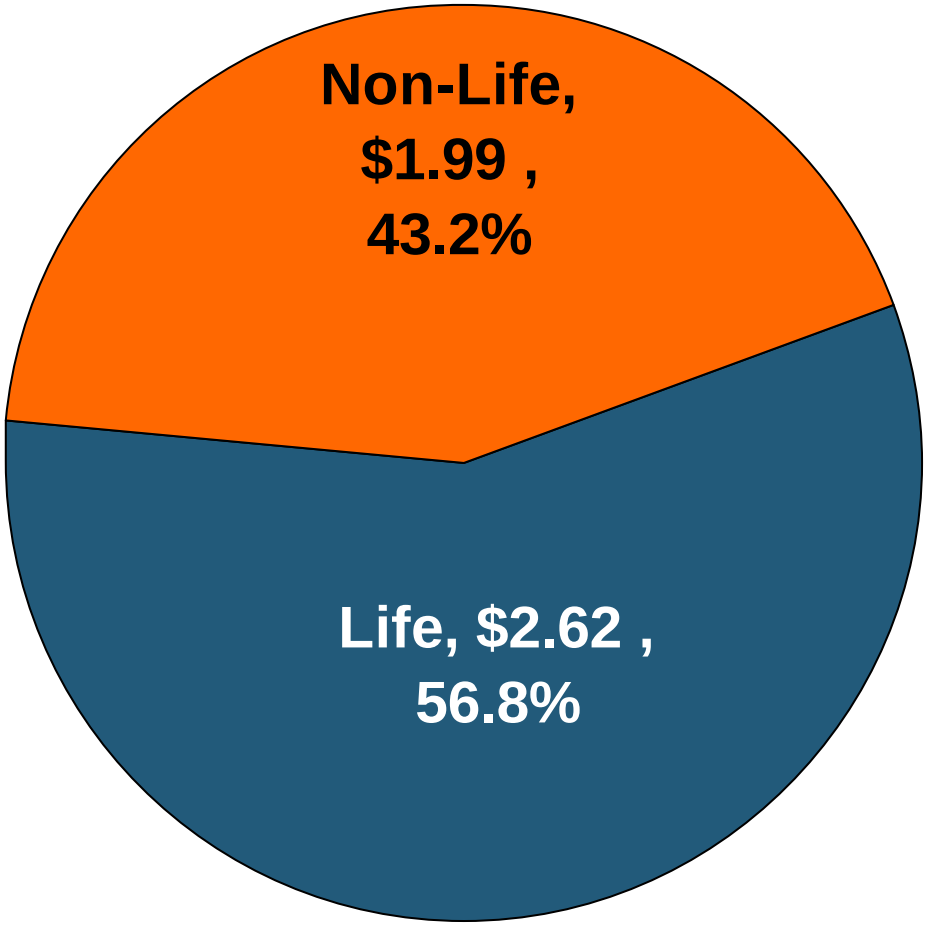
Global Insurance Premium Growth Trends

Growth Is Uneven Across Regions and Market Segments

Distribution of Global Insurance Premiums, 2012 ($ Trillions)

Total Premium Volume = $4.613 Trillion*



Life insurance accounted for nearly 57% of global premium volume in 2012 vs. 43% for Non-Life

Source: Swiss Re, *sigma*, No. 3/2013; Insurance Information Institute.

Distribution of Nonlife Premium: Industrialized vs. Emerging Markets, 2012

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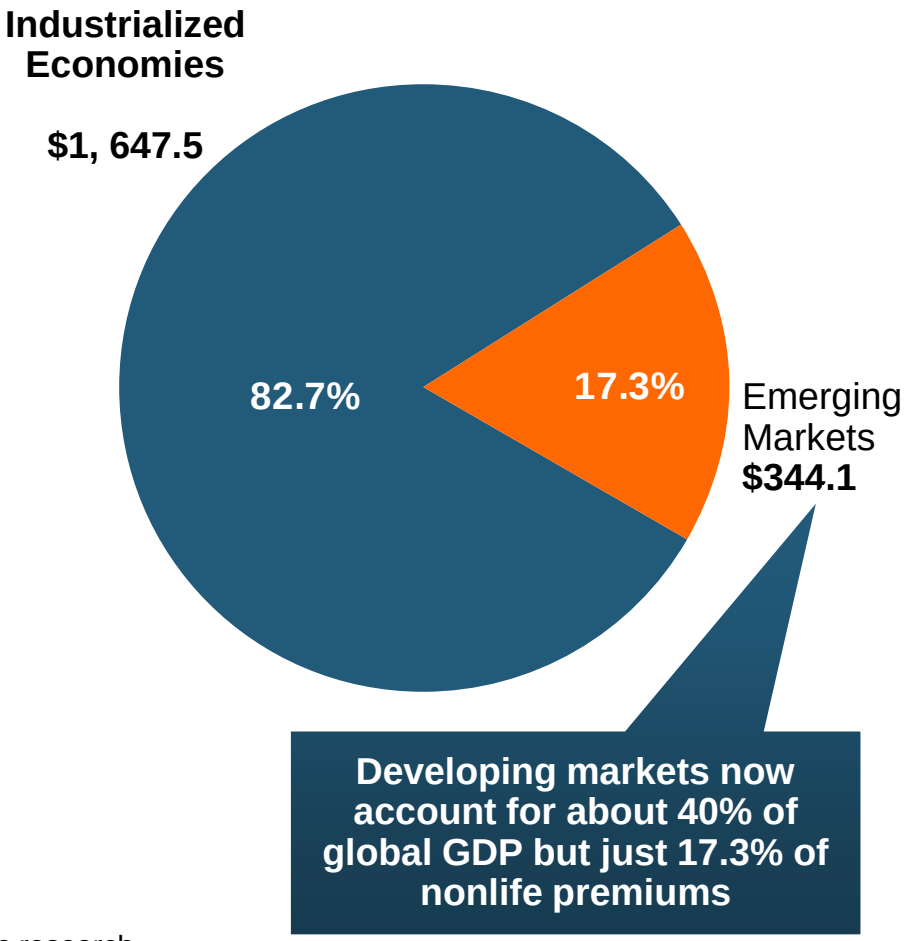
Premium Growth Facts

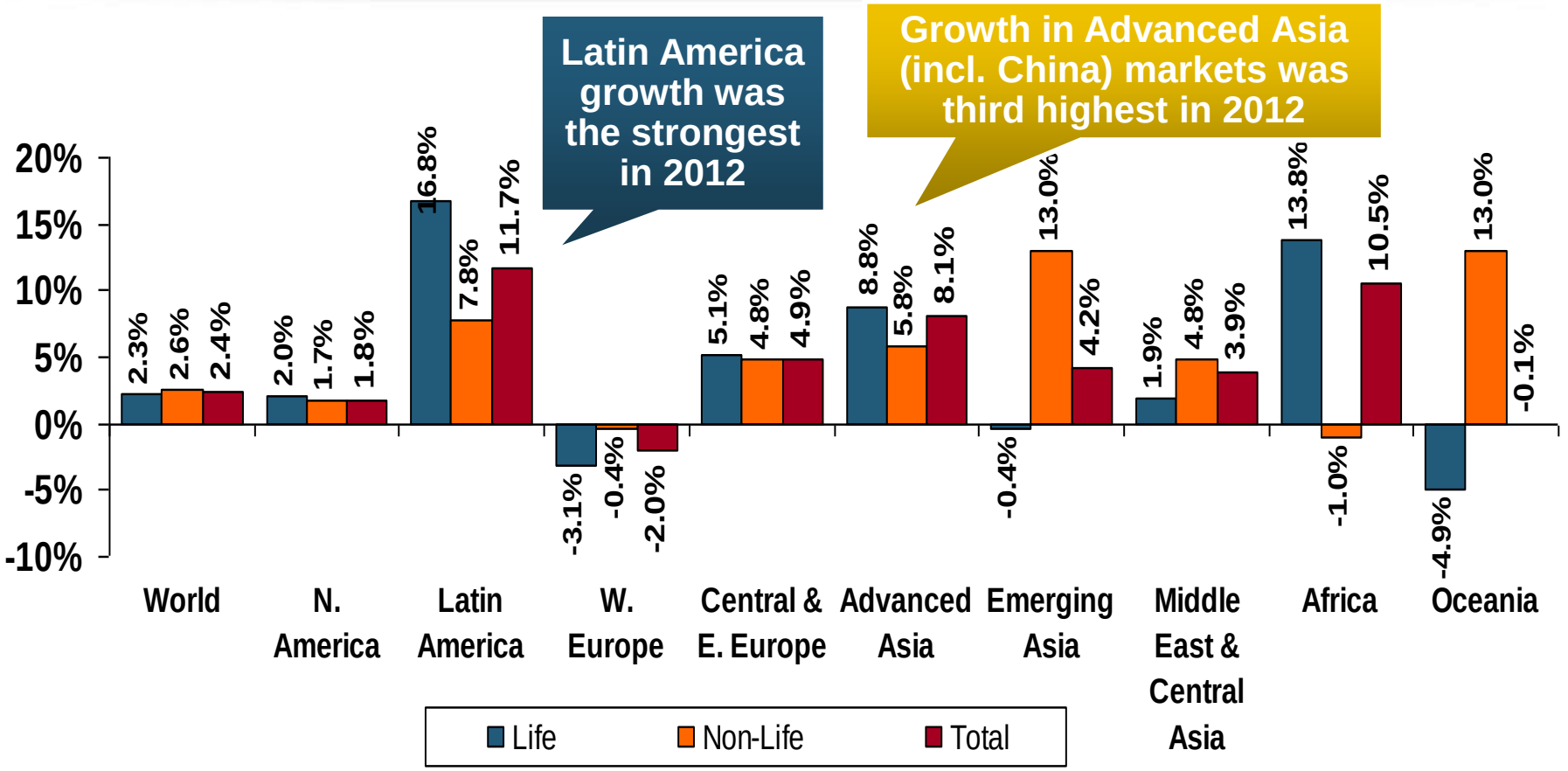
- Emerging market's share of nonlife premiums increased to 17.3% in 2012 from 14.3% in 2009. The share of premiums written in the $2 trillion global nonlife market remains much larger (82.7%) but continues to shrink.
- The financial crisis and sluggish recovery in the major insurance markets will accelerate the expansion of the emerging market sector

2012, $Billions



Sources: Swiss Re sigma No.3/2013; Insurance Information Institute research.

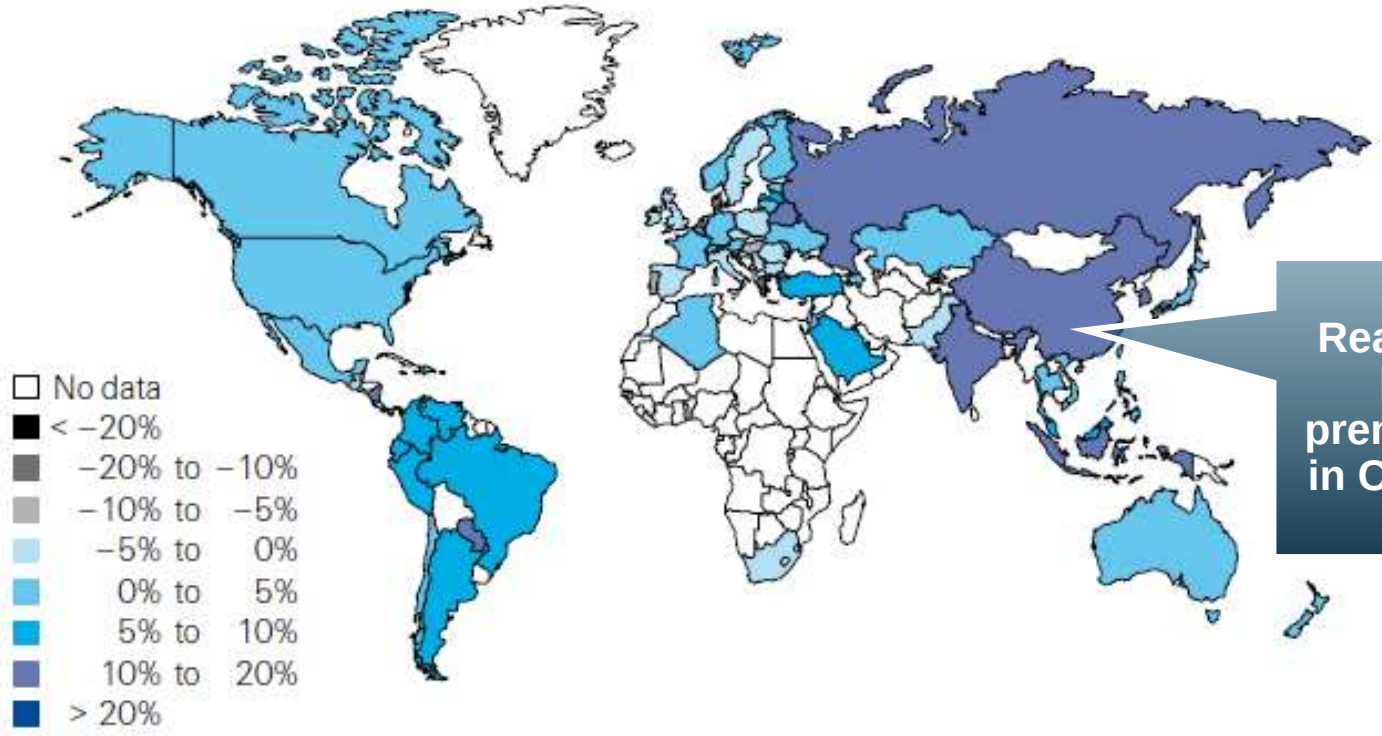
Premium Growth by Region, 2012



Global Premium Volume Totaled $4.613 Trillion in 2012, up 2.4% from $4.566 Trillion in 2011. Global Growth Was Weighed Down by Slow Growth in N. America and W. Europe and Partially Offset by Emerging Markets

Source: Swiss Re, *sigma*, No. 3/2013.

Non-Life Insurance: Global Real (Inflation Adjusted) Premium Growth, 2012

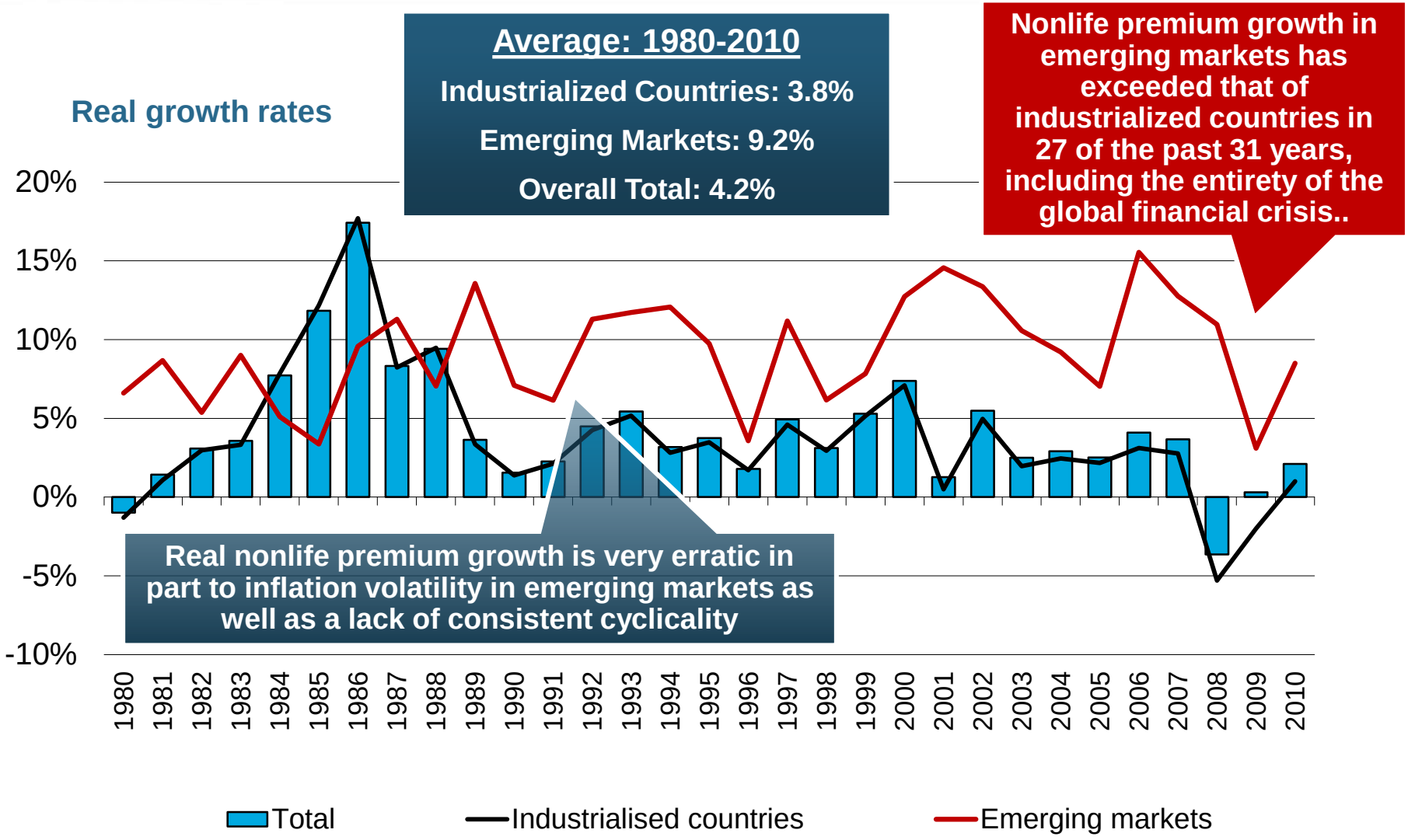


Real growth in non-life insurance premiums was faster in China than the US

Market	Life	Non-Life	Total
Advanced	1.8	**1.5**	1.7
Emerging	4.9	**8.6**	6.8
World	2.3	**2.6**	2.4

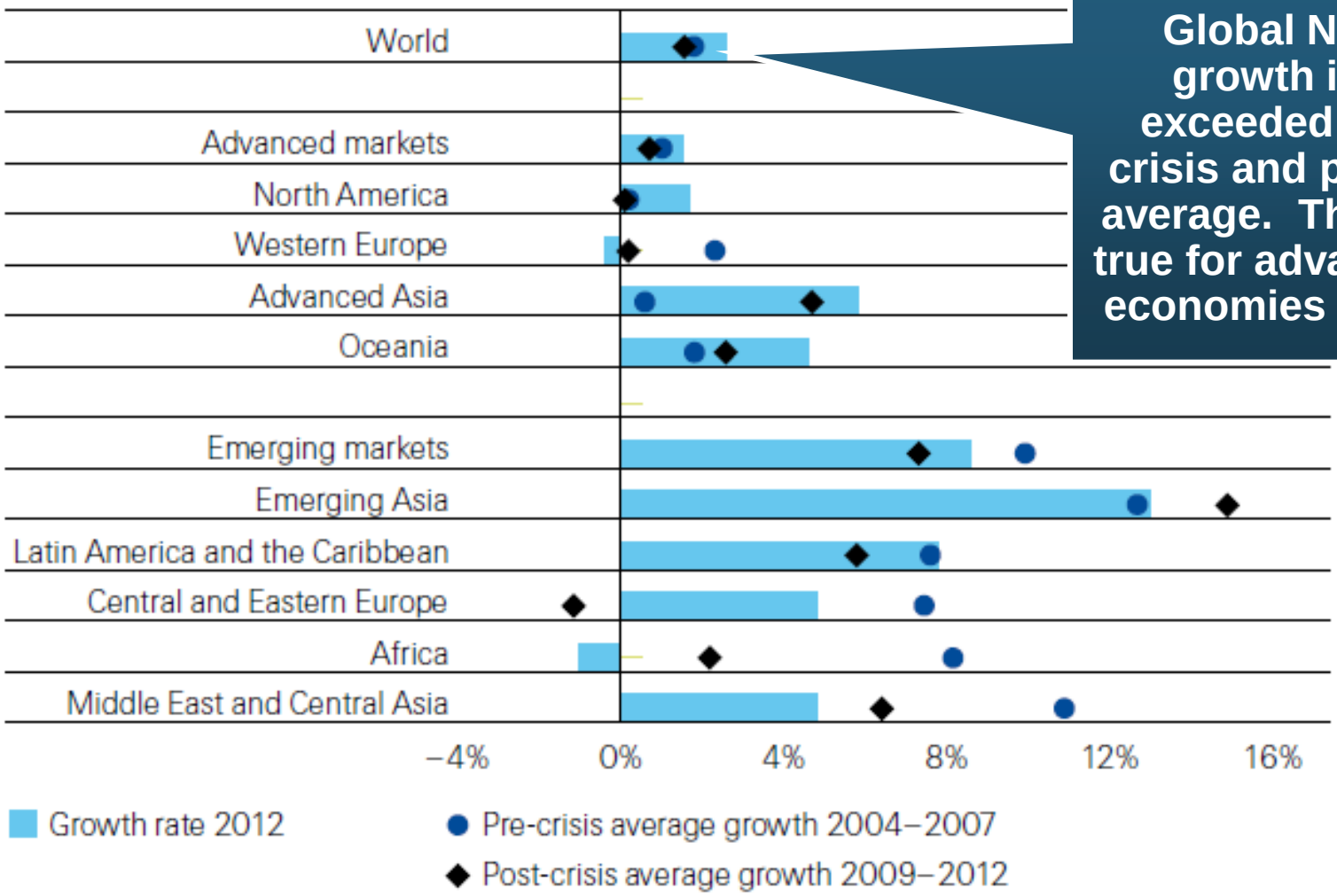
Source: Swiss Re, *sigma*, No. 3/2013.

Global Real (Inflation Adjusted) Nonlife Premium Growth: 1980-2010



Source: Swiss Re, *sigma*, No. 2/2010.

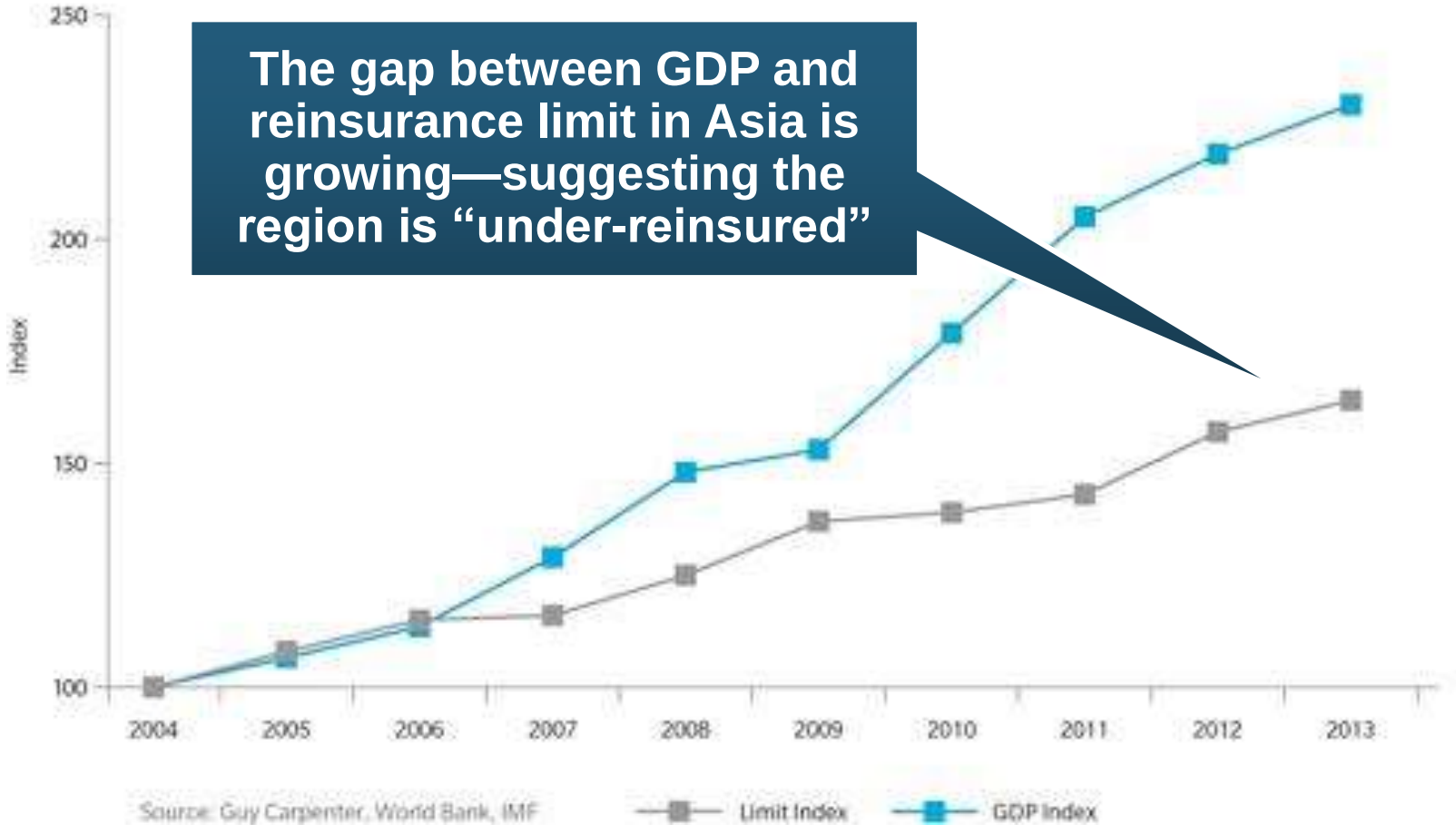
Non-Life Insurance: Global Real (Inflation Adjusted) Premium Growth, 2012



Global Non-Life growth in 2012 exceeded the pre-crisis and post-crisis average. The same is true for advanced Asia economies like China

Source: Swiss Re, *sigma*, No. 3/2013.

Gap Between GDP Growth and Reinsurance Limit in Asia-Pacific Region: 2004—2013



Sources: Guy Carpenter, World Bank, IMF; Insurance Information Institute .

Premiums Written in Life and Non-Life, by Region: 1962-2012

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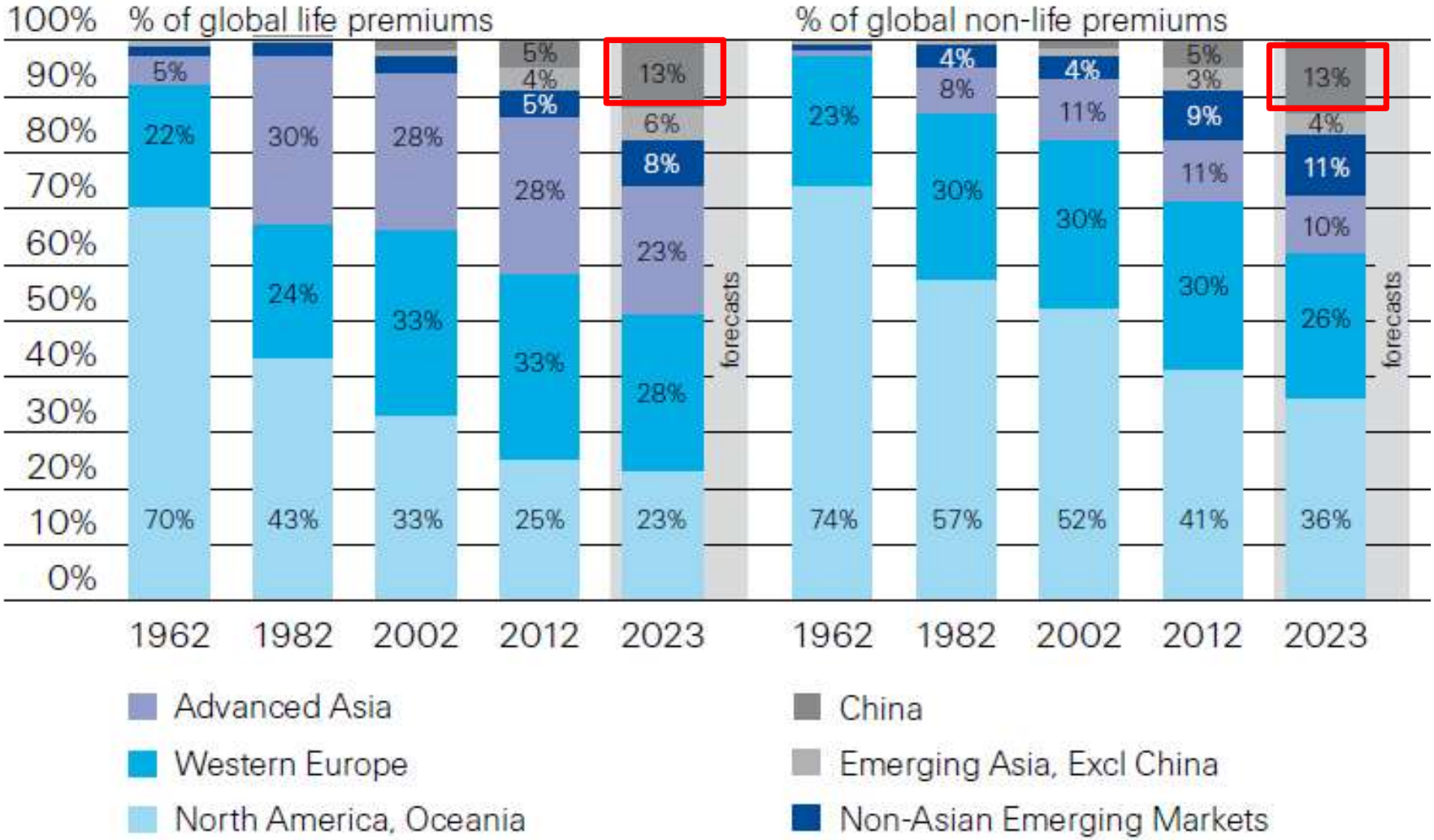
Emerging market shares rose rapidly over the past 50 years



Source: Swiss Re, *sigma*, No. 3/2013.

Population Distribution, by Region: 1962-2062F

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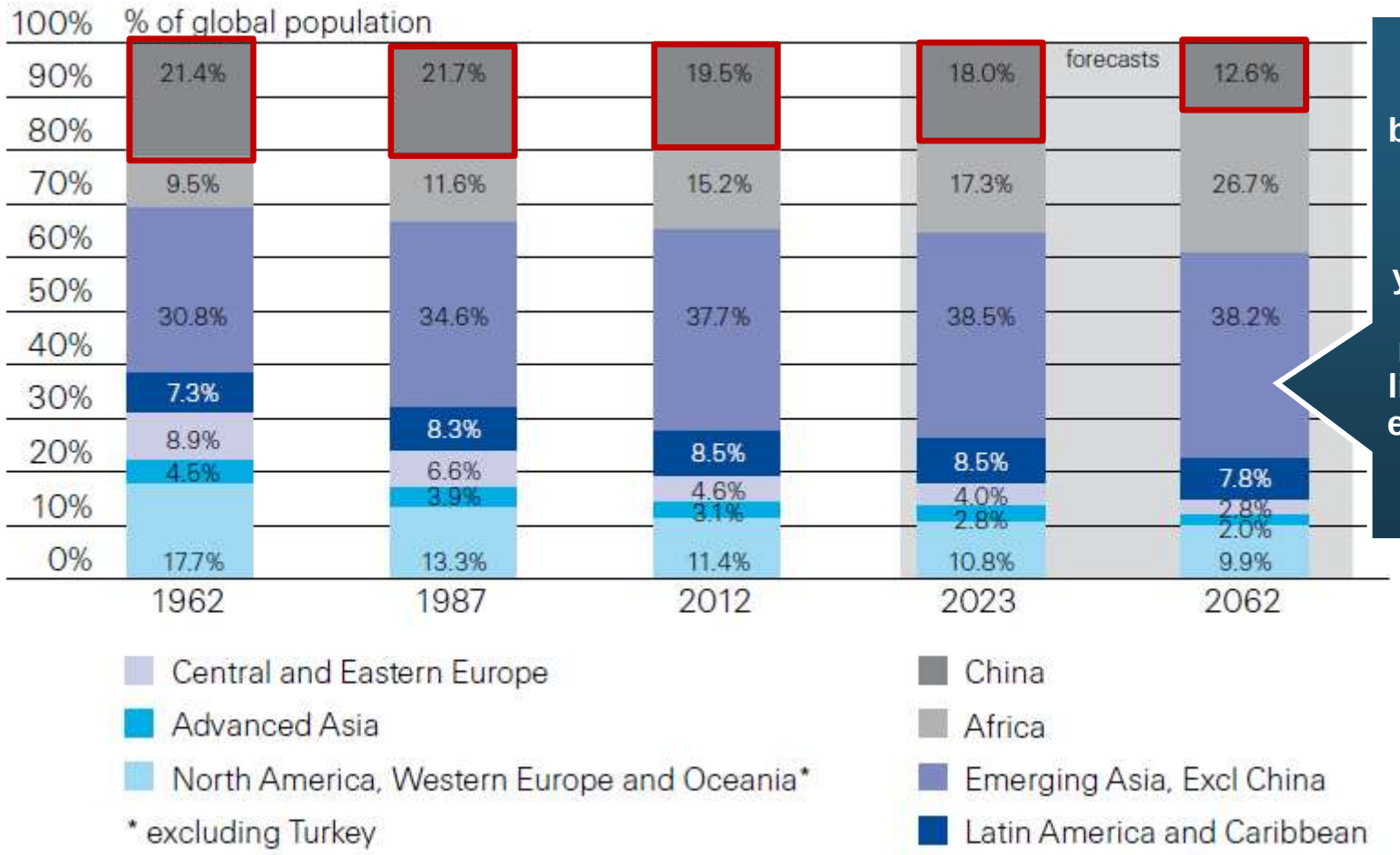
Enormous population shifts will impact insurance demand over the next half century



Africa is expected to be the fastest population growth over the next 50 years, but no expectation now of Asia-like growth in economies or insurance demand

Source: Swiss Re, *sigma*, No. 3/2013 from United Nations Department of Economic and Sovial Affairs, Population Division.

Relationship Between Real GDP and Real Life and Non-Life Premium Growth, 2012

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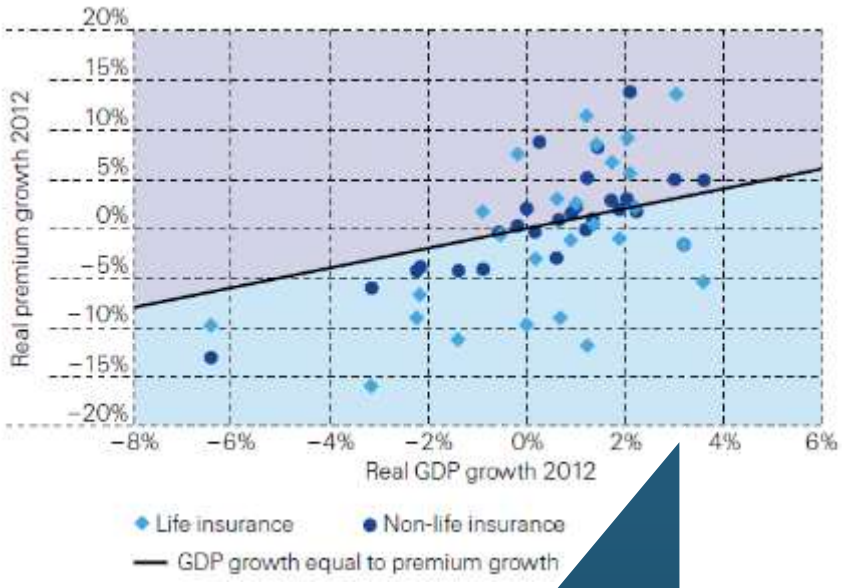
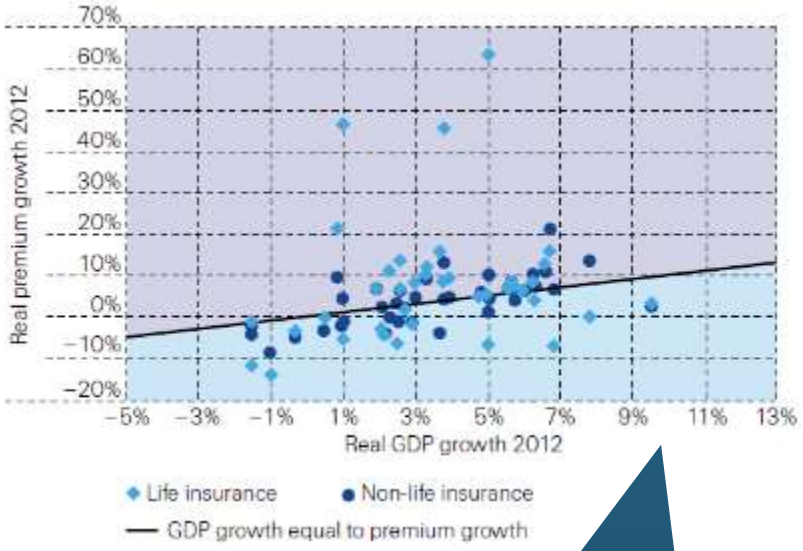
Advanced Markets



The was a clear but highly relationship between real GDP growth and real premium growth in advance markets in 2012

Emerging Markets



The correlation between real GDP growth and real premium growth in emerging markets was much stronger than in advanced markets in 2012

Source: Swiss Re, *sigma*, No. 3/2013.

Insurance Density and Penetration for Advanced and Emerging Markets, 2012

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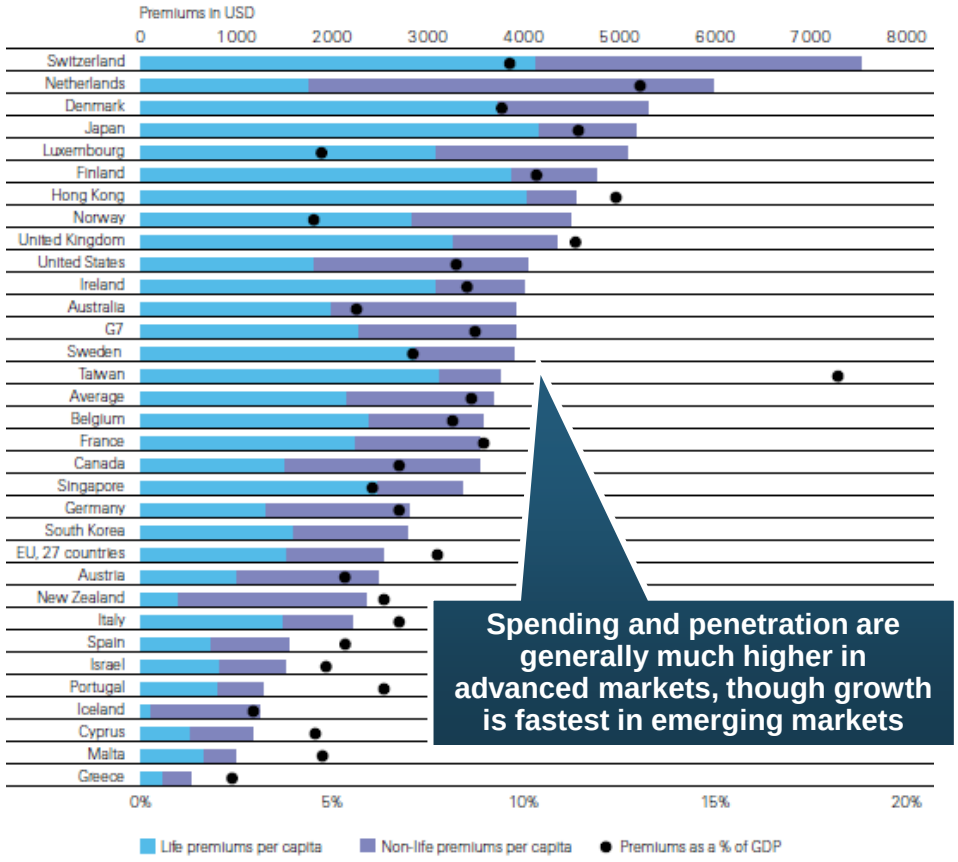
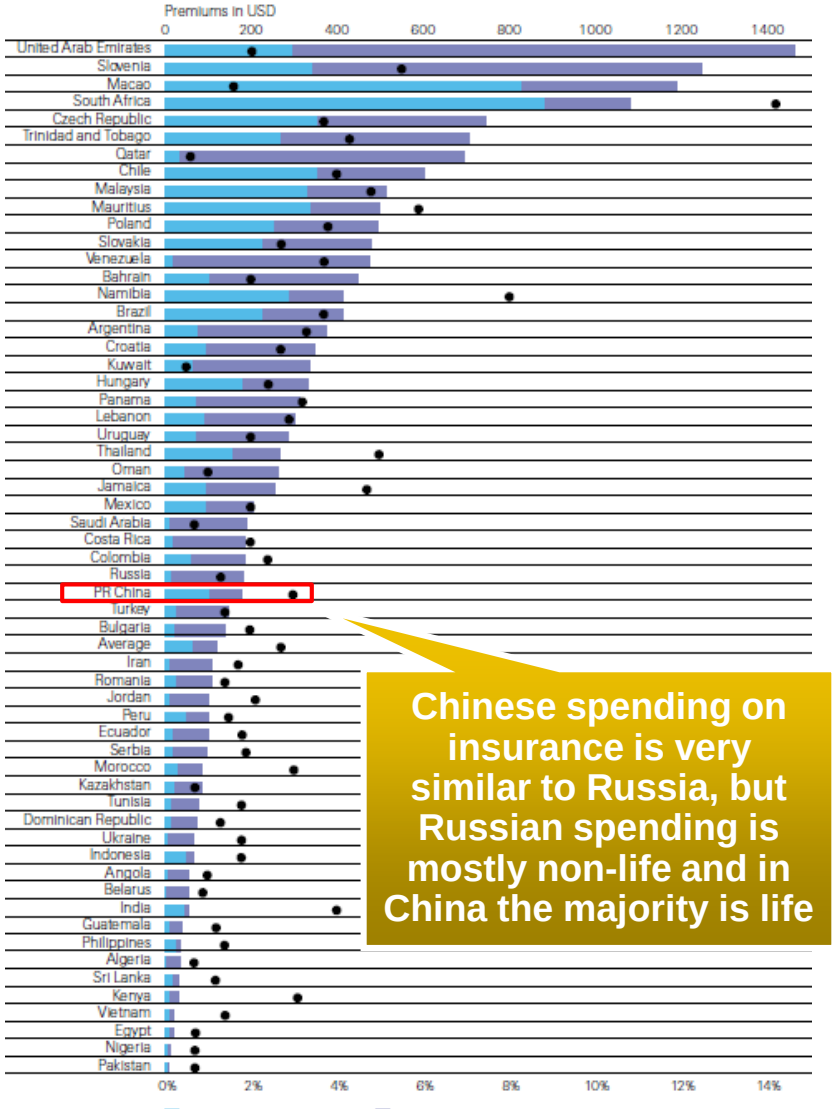
Advanced Markets



Spending and penetration are generally much higher in advanced markets, though growth is fastest in emerging markets

Emerging Markets



Chinese spending on insurance is very similar to Russia, but Russian spending is mostly non-life and in China the majority is life

Source: Swiss Re, *sigma*, No. 3/2013.

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The Unfortunate Nexus: Opportunity, Risk & Instability

Most of the Global Economy's Future Gains Will be Fraught with Much Greater Risk and Uncertainty than in the Past

Political Risk in 2013: Greatest Business Opportunities Are Often in Risky Nations

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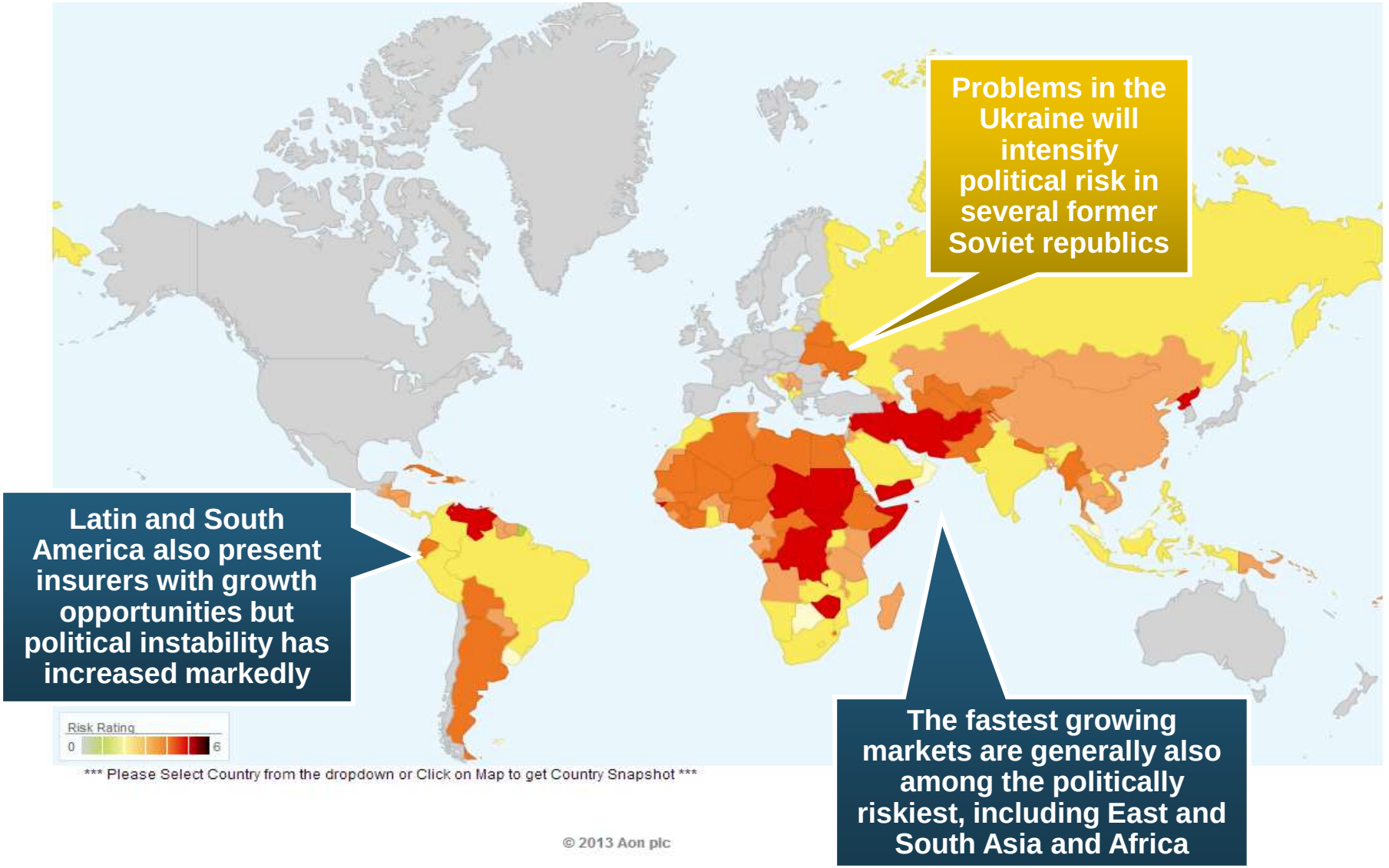

Source: Aon PLC; Insurance Information Institute.

Terrorism Risk in 2013: Greatest Business Opportunities Are Often in Risky Nations

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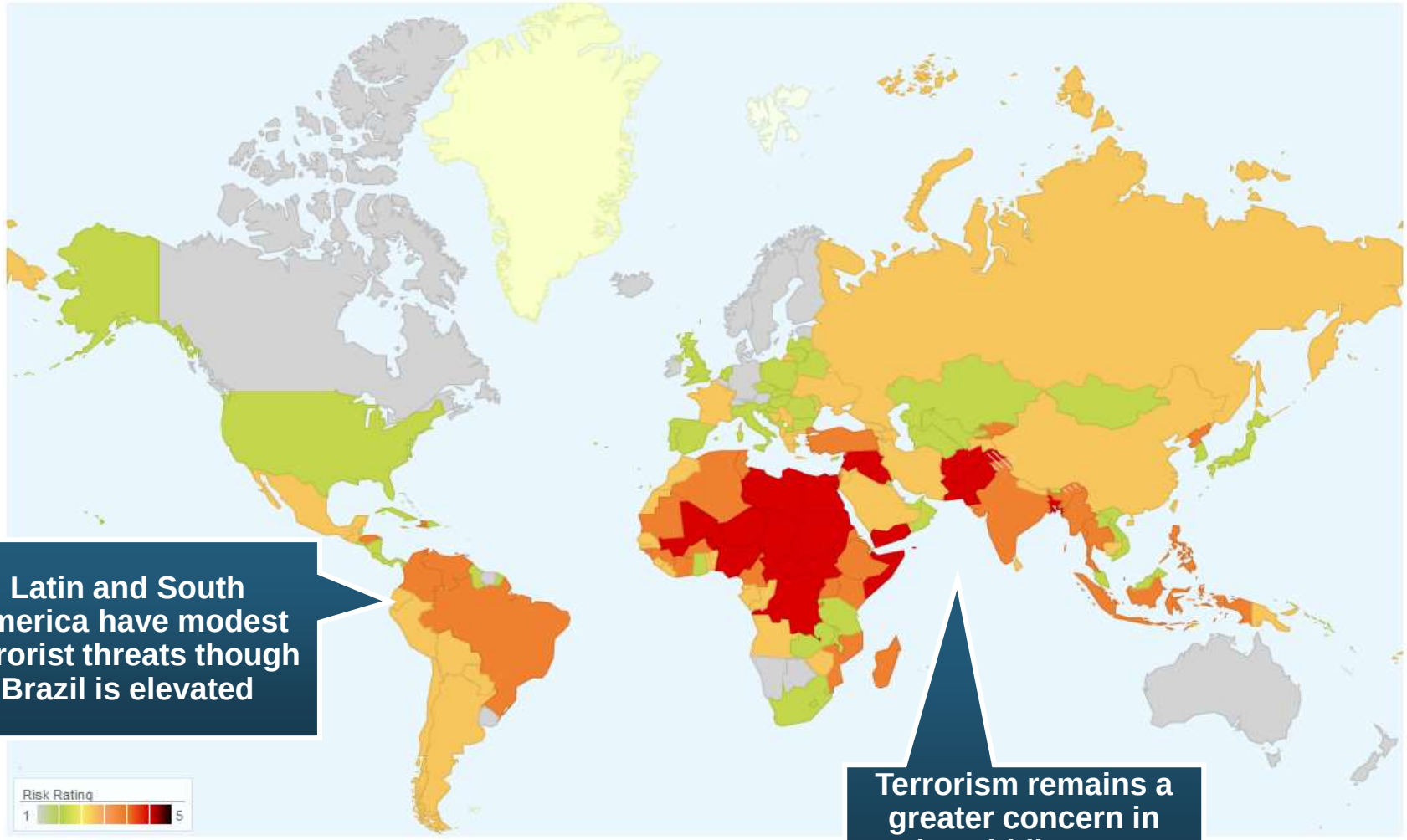

Latin and South America have modest terrorist threats though Brazil is elevated

Terrorism remains a greater concern in the Middle East, Africa and South Asia

Source: Aon PLC; Insurance Information Institute.

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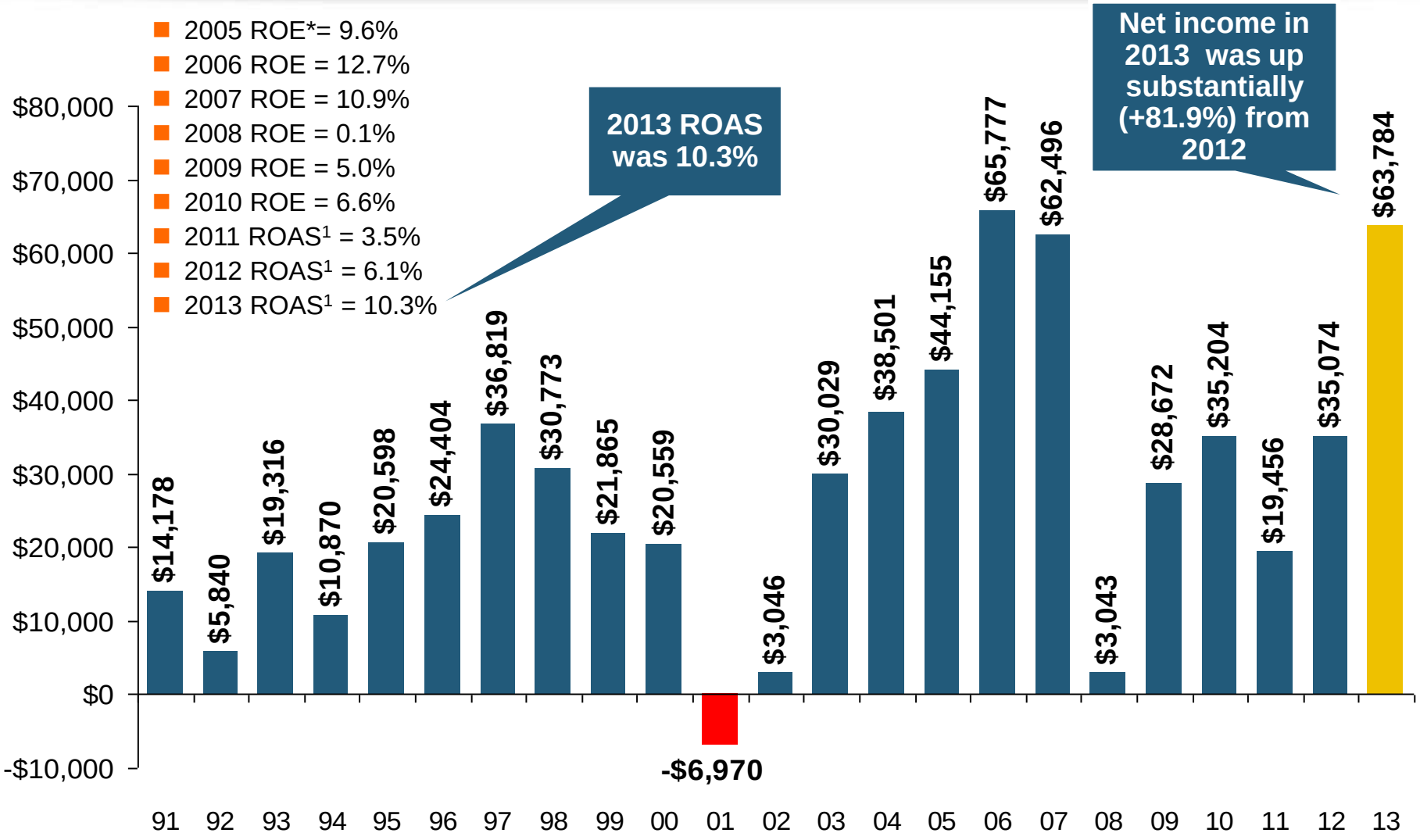
P/C (Re)Insurance Industry Financial Overview

2013: Best Year in the Post-Crisis Era

Performance Improved with Lower CATs, Strong Markets

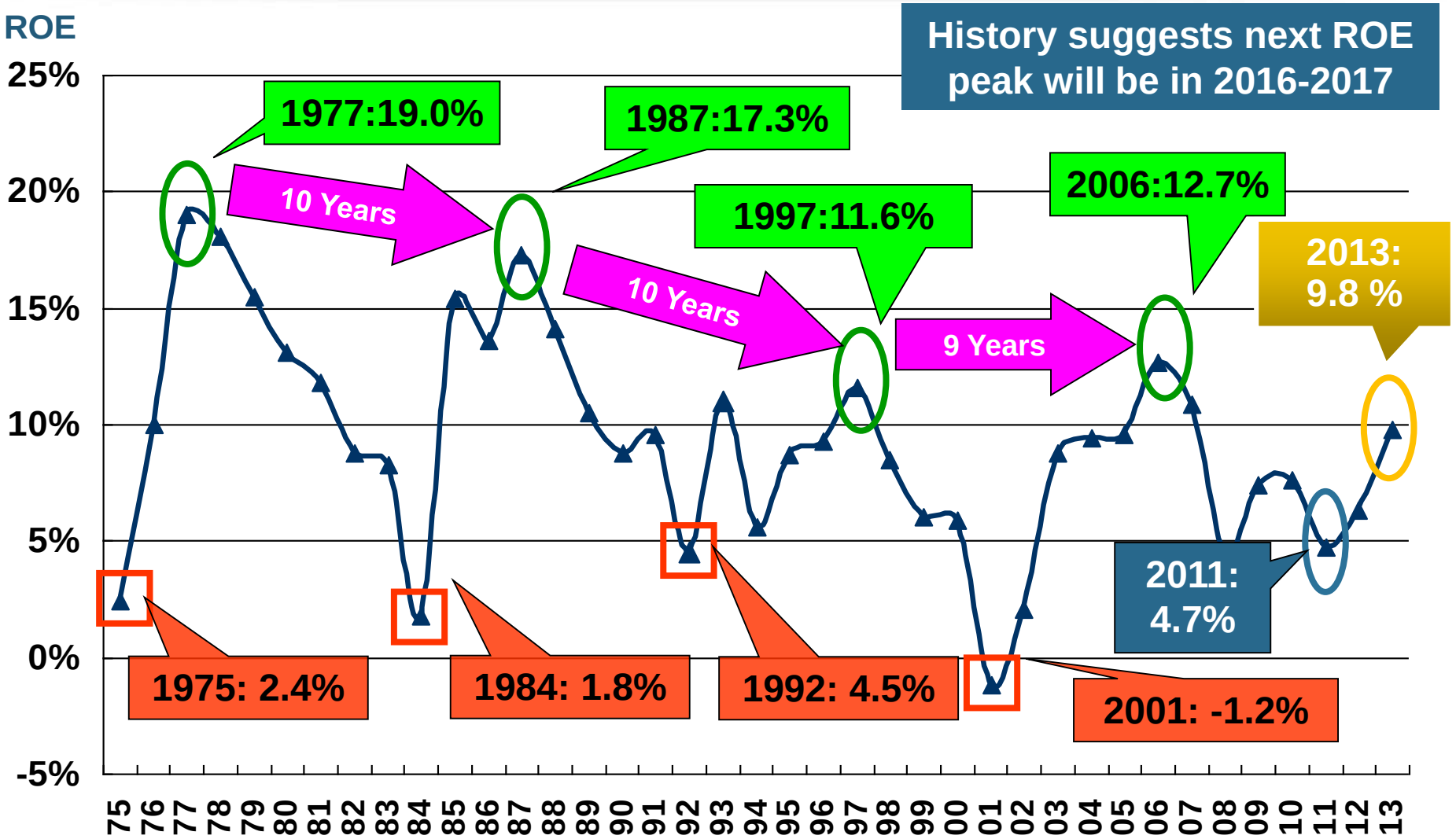
P/C Net Income After Taxes 1991–2013 ($ Millions)



•ROE figures are GAAP; [1]Return on avg. surplus. Excluding Mortgage & Financial Guaranty insurers yields a 9.8% ROAS in 2013, 6.3% ROAS in 2012, 4.7% ROAS for 2011, 7.6% for 2010 and 7.4% for 2009.

Sources: A.M. Best, ISO, Insurance Information Institute

Profitability Peaks & Troughs in the P/C Insurance Industry, 1975 – 2013*



*Profitability = P/C insurer ROEs. 2011-13 figures are estimates based on ROAS data. Note: Data for 2008-2013 exclude mortgage and financial guaranty insurers.

Source: Insurance Information Institute; NAIC, ISO, A.M. Best.

A 100 Combined Ratio Isn't What It Once Was: Investment Impact on ROEs

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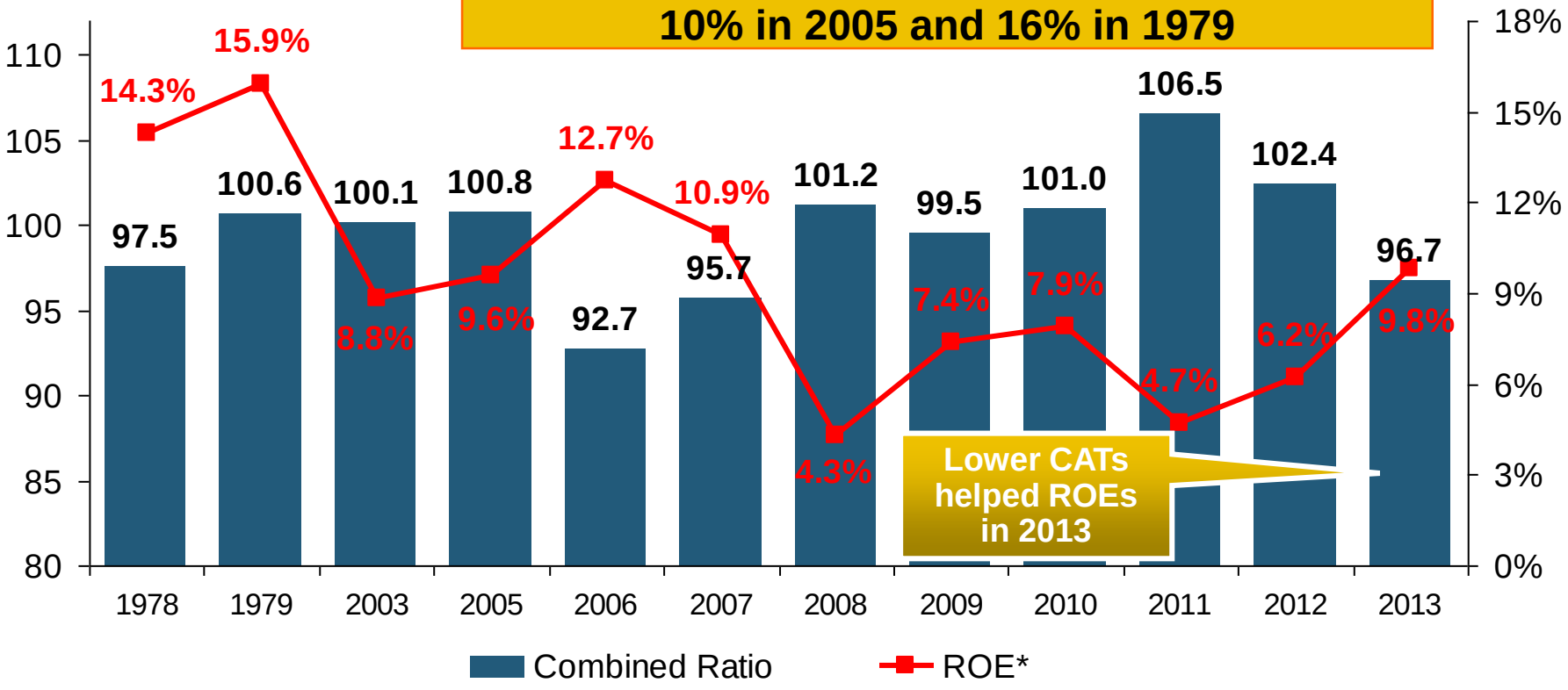
Combined Ratio / ROE

A combined ratio of about 100 generates an ROE of ~7.0% in 2012, ~7.5% ROE in 2009/10, 10% in 2005 and 16% in 1979

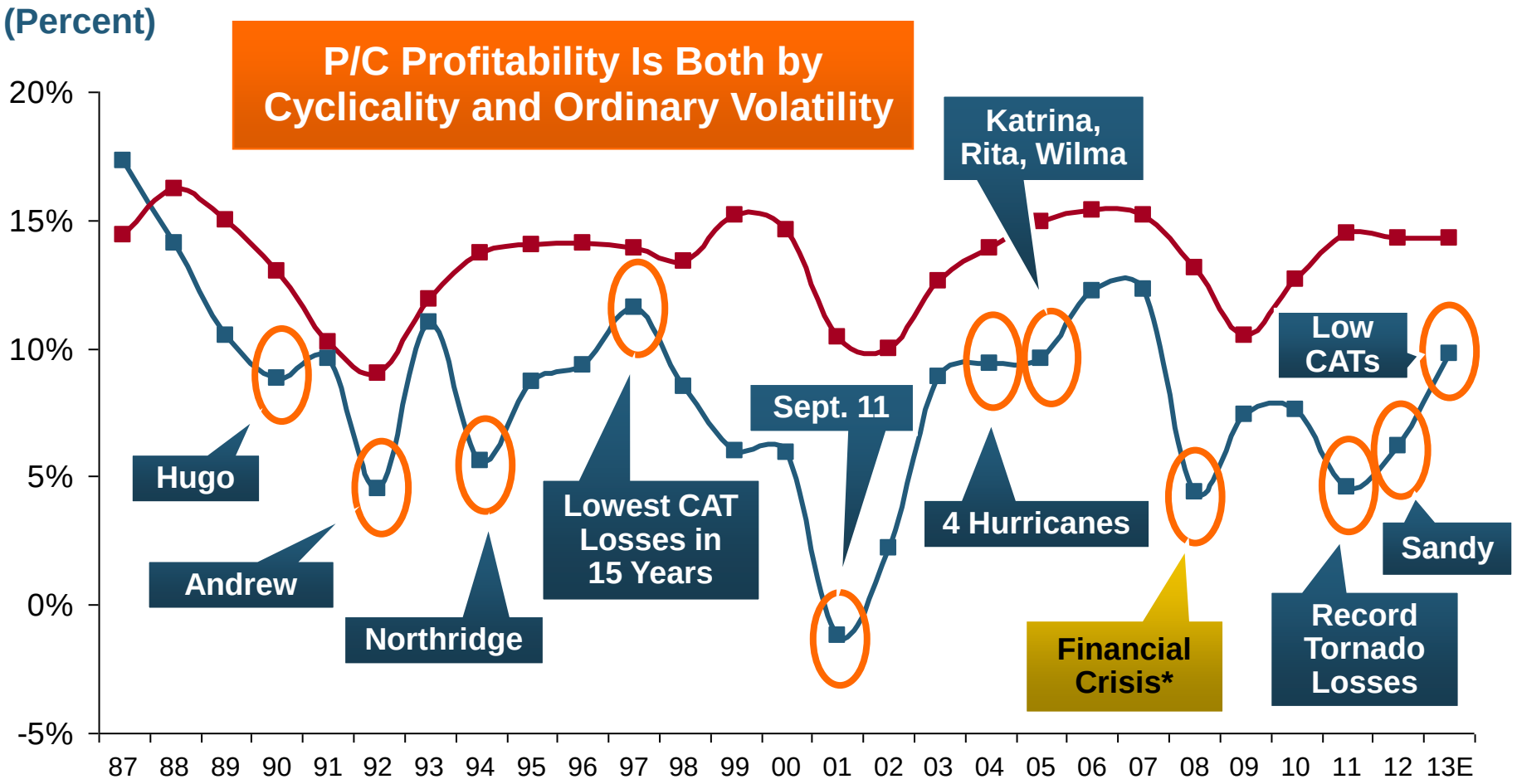


Combined Ratios Must Be Lower in Today's Depressed Investment Environment to Generate Risk Appropriate ROEs

* 2008 -2013 figures are return on average surplus and exclude mortgage and financial guaranty insurers. 2013 combined ratio including M&FG insurers is 96.1; 2012 =103.2, 2011 = 108.1, ROAS = 3.5%.

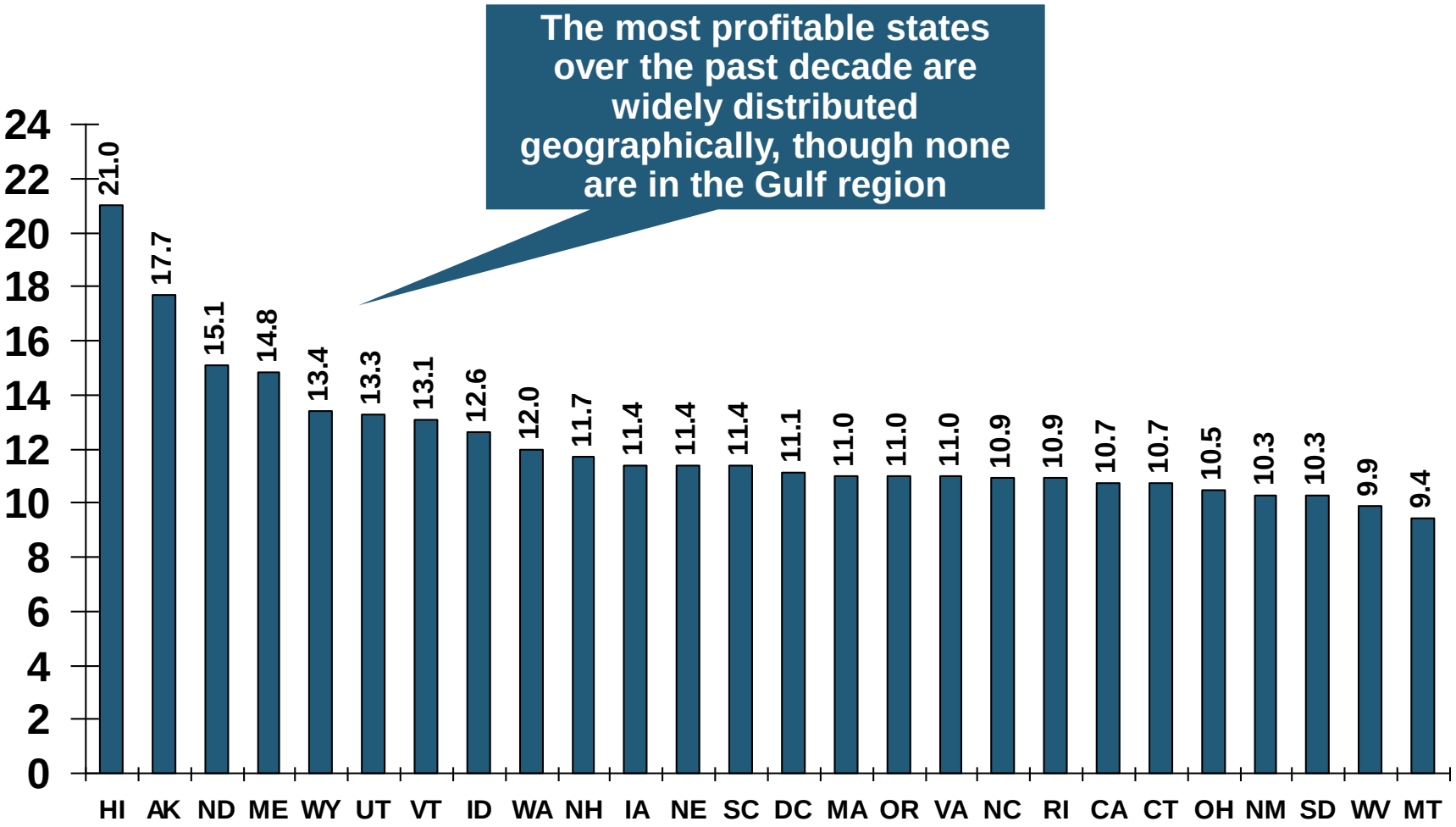
Source: Insurance Information Institute from A.M. Best and ISO Verisk Analytics data.

ROE: Property/Casualty Insurance vs. Fortune 500, 1987–2013E*



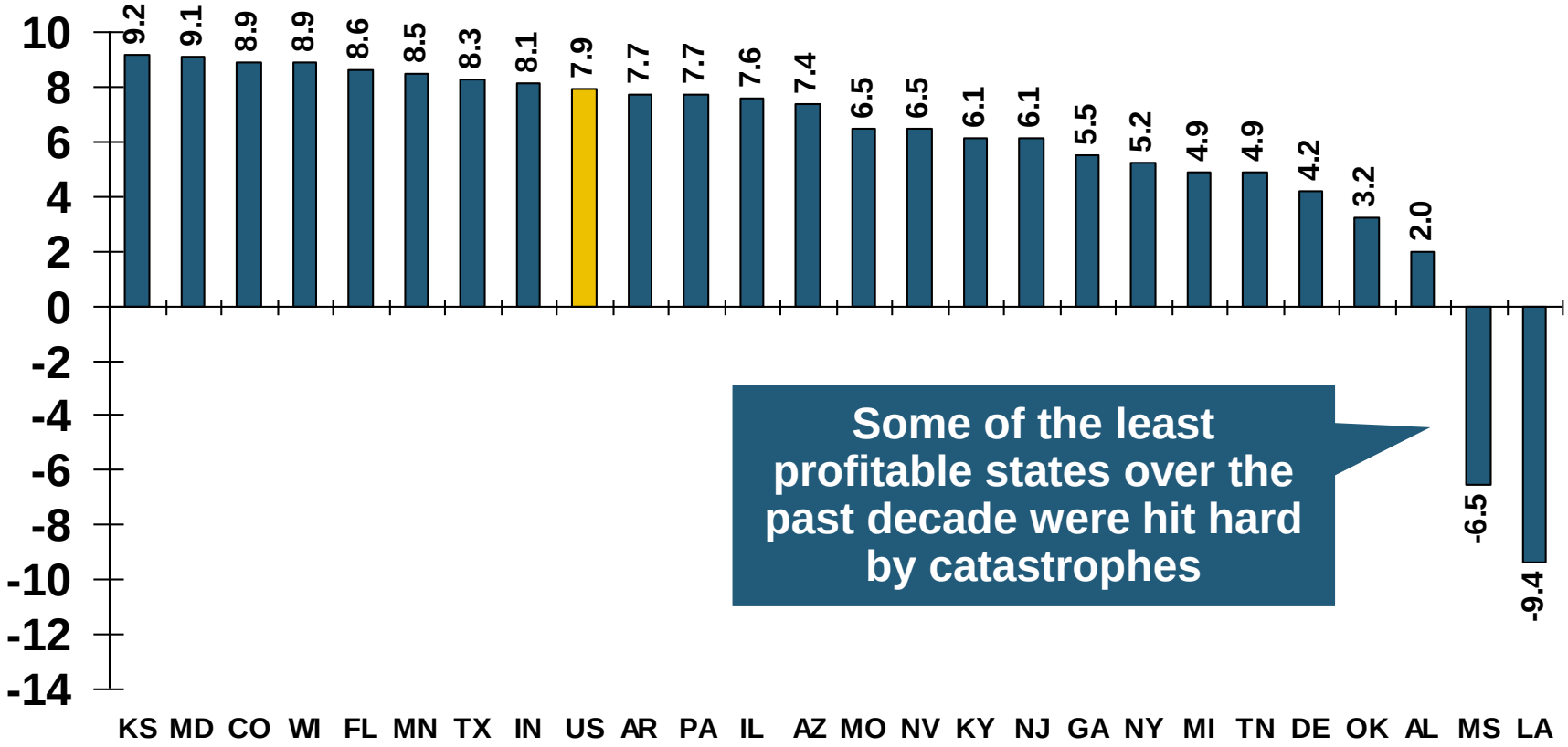
* Excludes Mortgage & Financial Guarantee in 2008 – 2013. 2013 Fortune 500 figure is I.I.I. estimate.
Sources: ISO, *Fortune*; Insurance Information Institute.

RNW All Lines by State, 2003-2012 Average: Highest 25 States



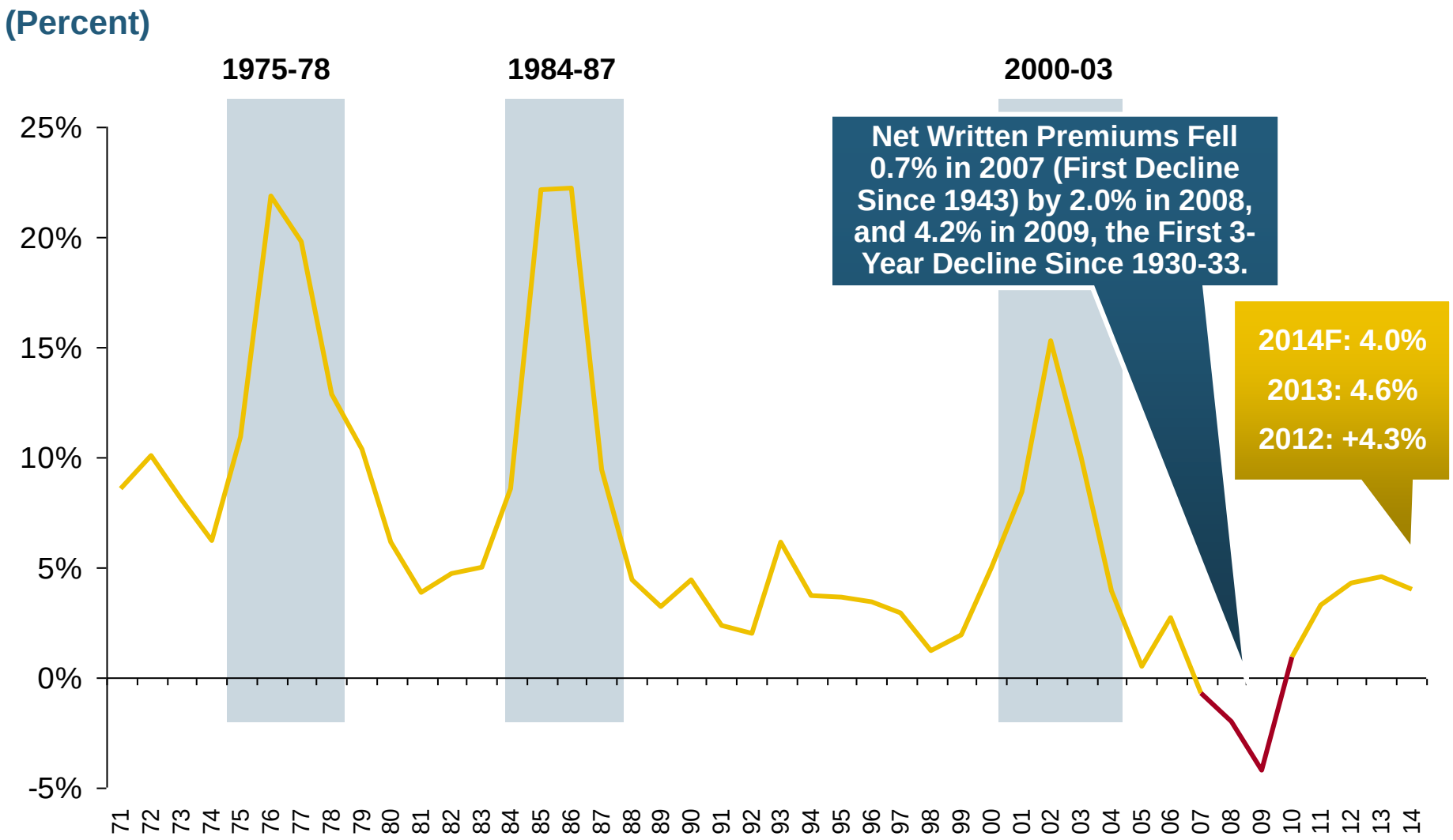
Source: NAIC.

RNW All Lines by State, 2003-2012 Average: Lowest 25 States



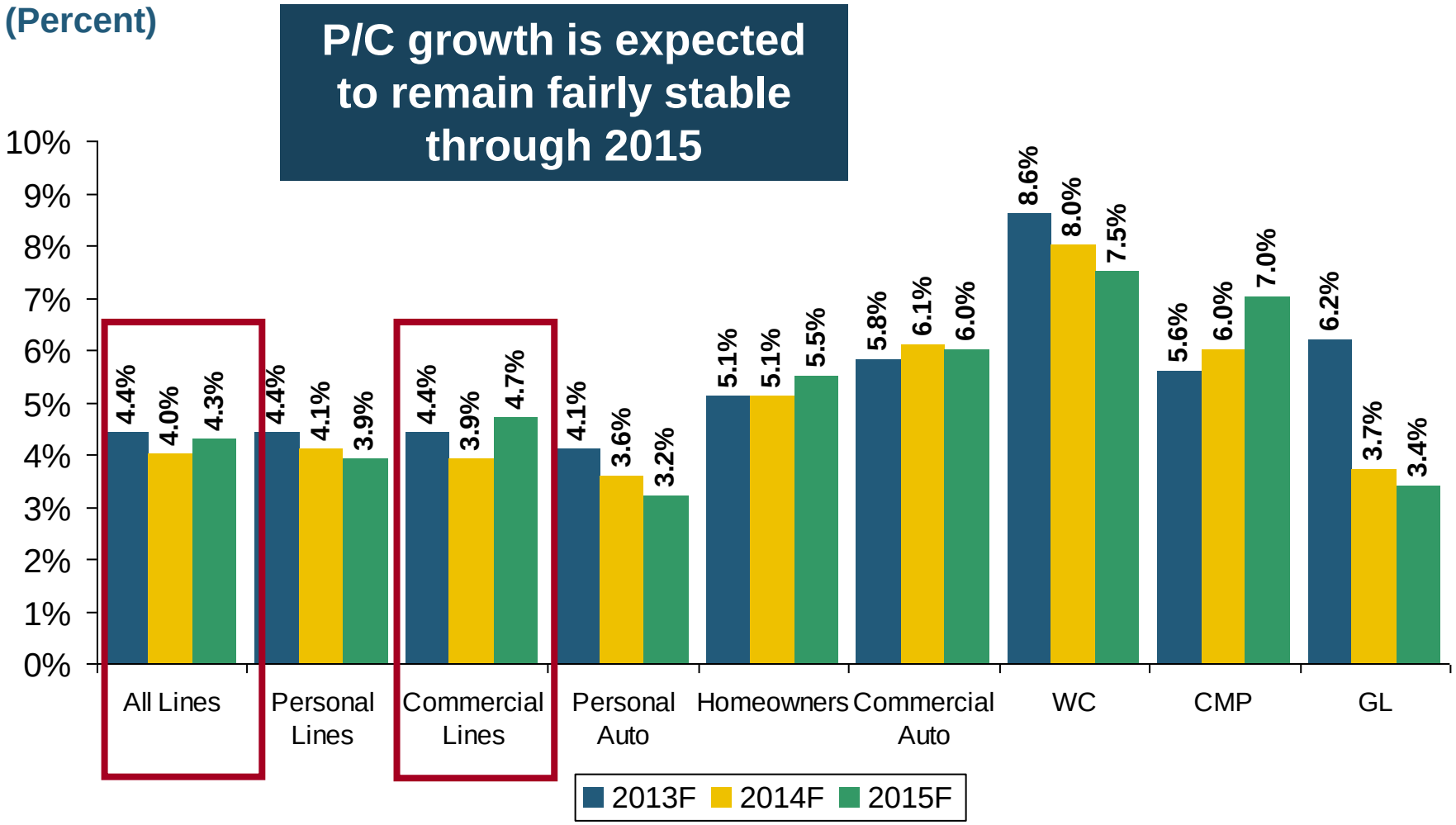
Source: NAIC.

Net Premium Growth: Annual Change, 1971—2014F



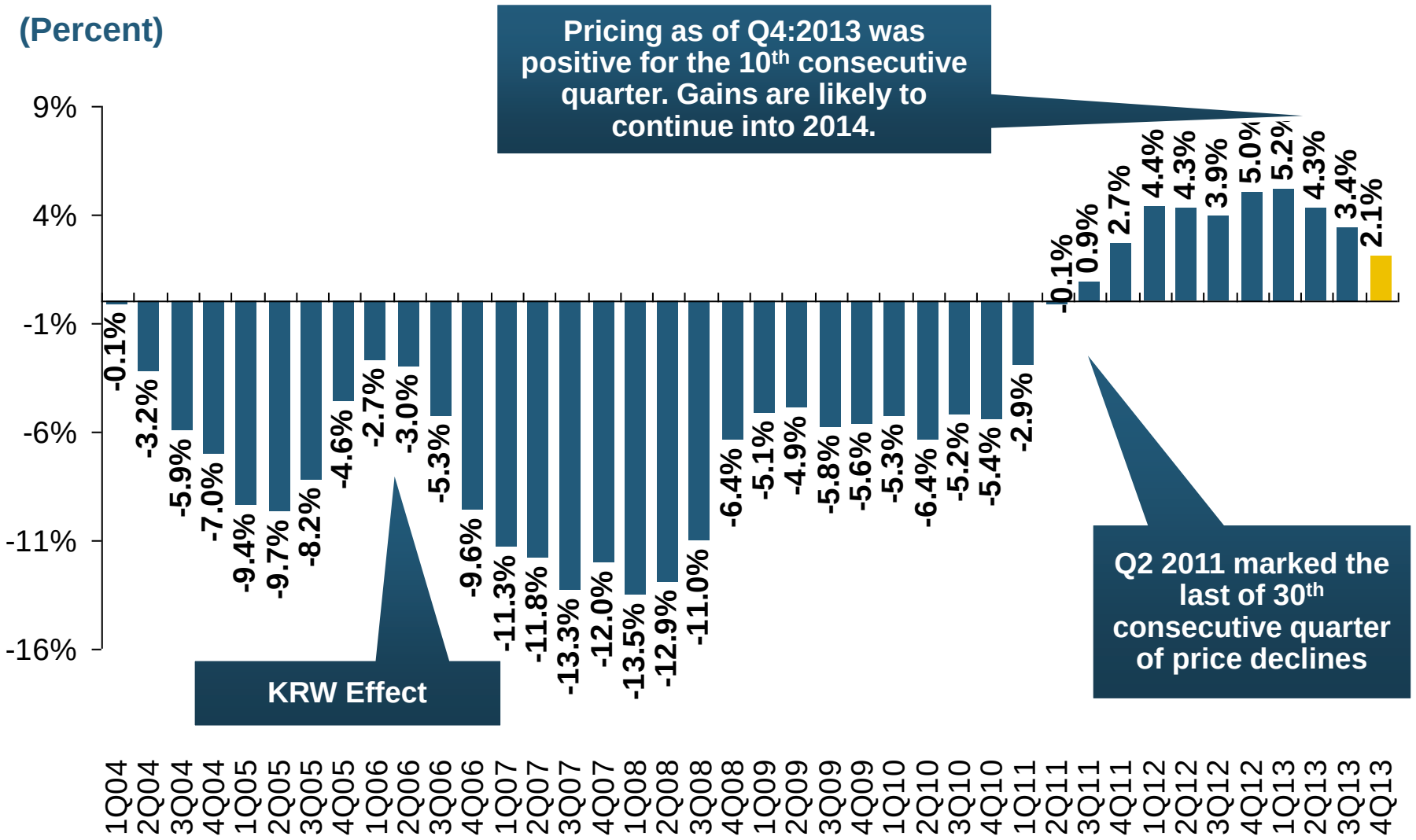
Shaded areas denote "hard market" periods
Sources: A.M. Best (historical and forecast), ISO, Insurance Information Institute.

Growth in Direct Written Premium by Line, 2013-2015F*



Source: Conning.

Average Commercial Rate Change, All Lines, (1Q:2004–4Q:2013)



Note: CIAB data cited here are based on a survey. Rate changes earned by individual insurers can and do vary, potentially substantially.
Source: Council of Insurance Agents & Brokers; Insurance Information Institute

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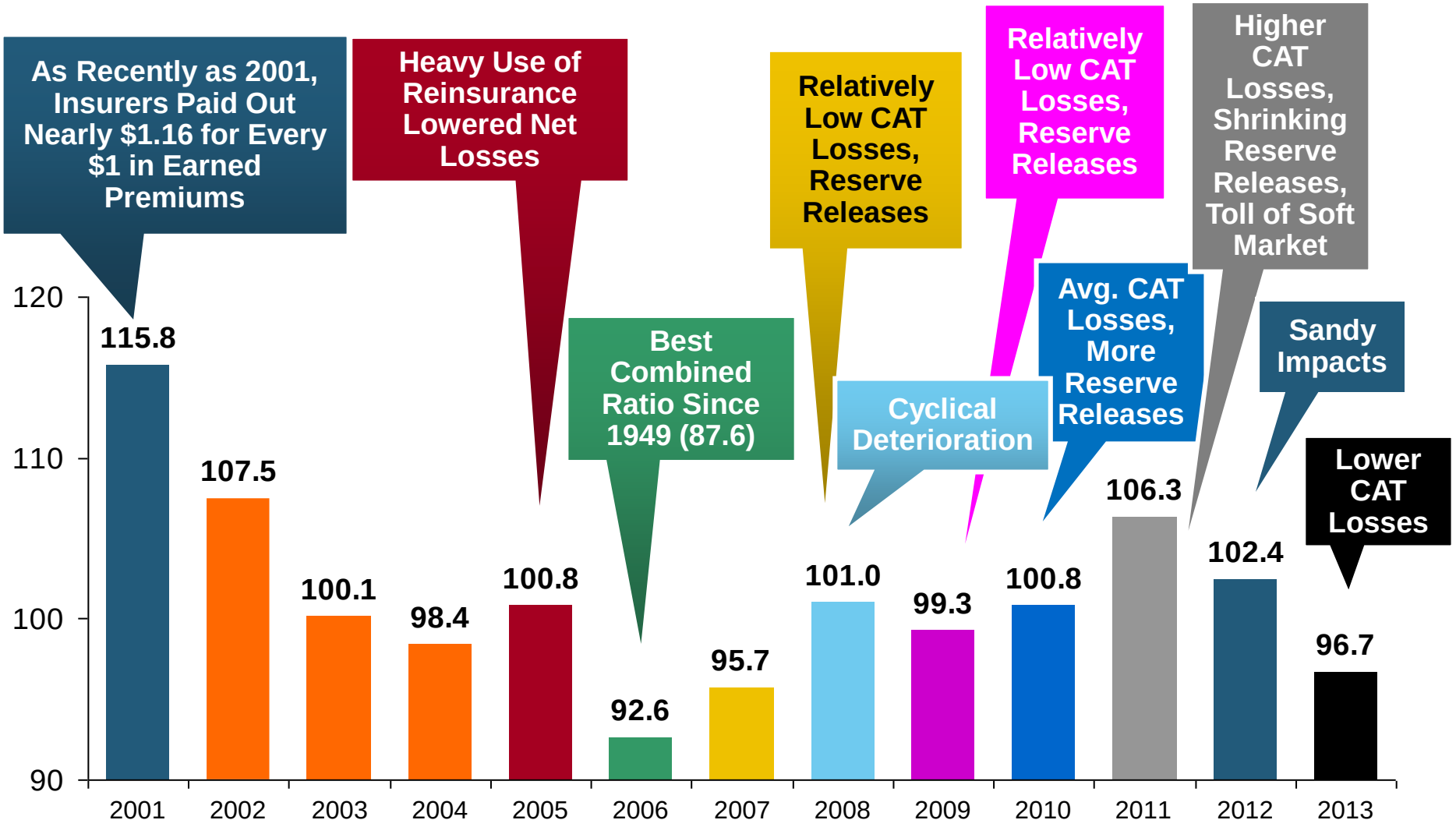
P/C UNDERWRITING

Underwriting Losses in 2013 Much Improved After High Catastrophe Losses in 2011/12

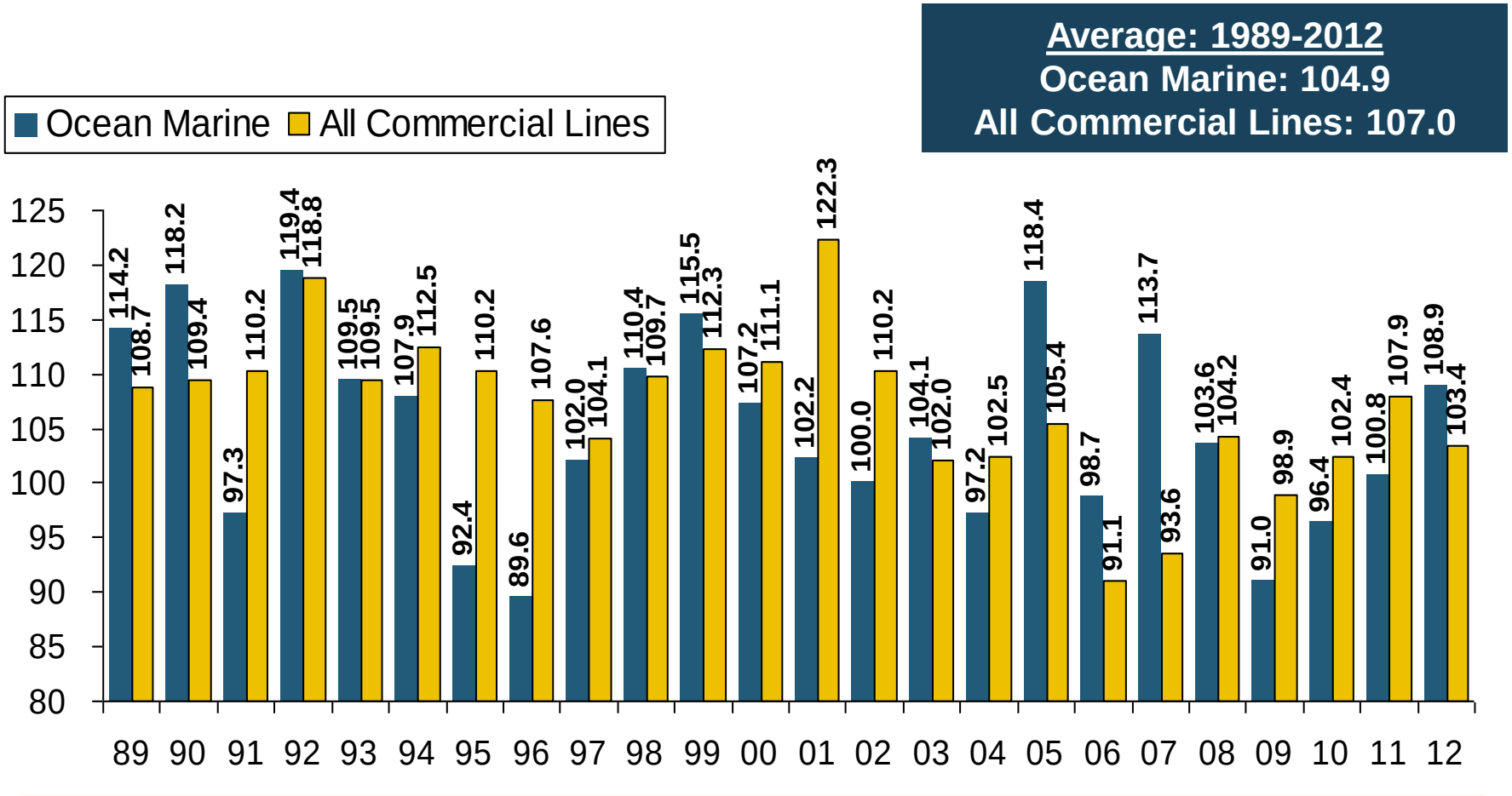
P/C Insurance Industry Combined Ratio, 2001–2013*



* Excludes Mortgage & Financial Guaranty insurers 2008--2012. Including M&FG, 2008=105.1, 2009=100.7, 2010=102.4, 2011=108.1; 2012:=103.2; 2013: = 96.1.

Sources: A.M. Best, ISO.

Ocean Marine vs. Commercial Lines Combined Ratio: 1989–2012



Ocean Marine has marginally outperformed Commercial Lines overall over the period from 1989 – 2012

Sources: A.M. Best; Insurance Information Institute.

Number of Years with Underwriting Profits by Decade, 1920s–2010s

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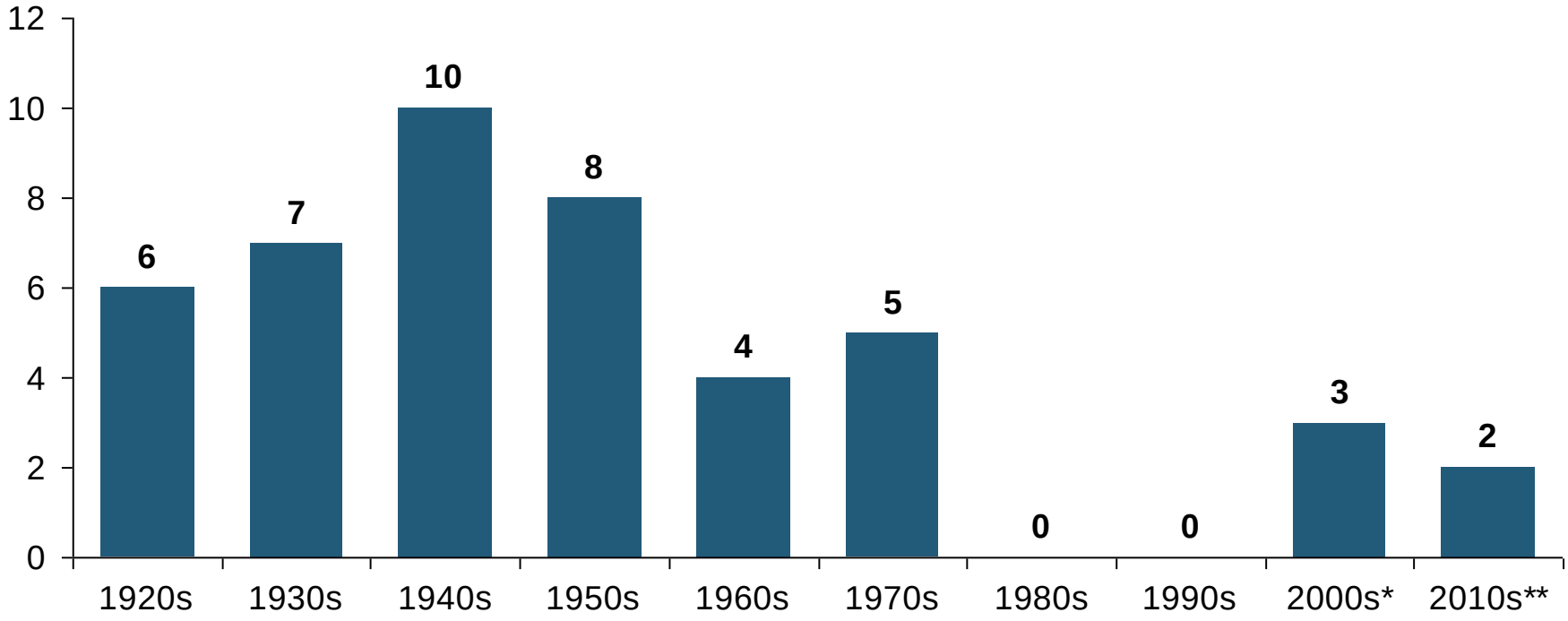
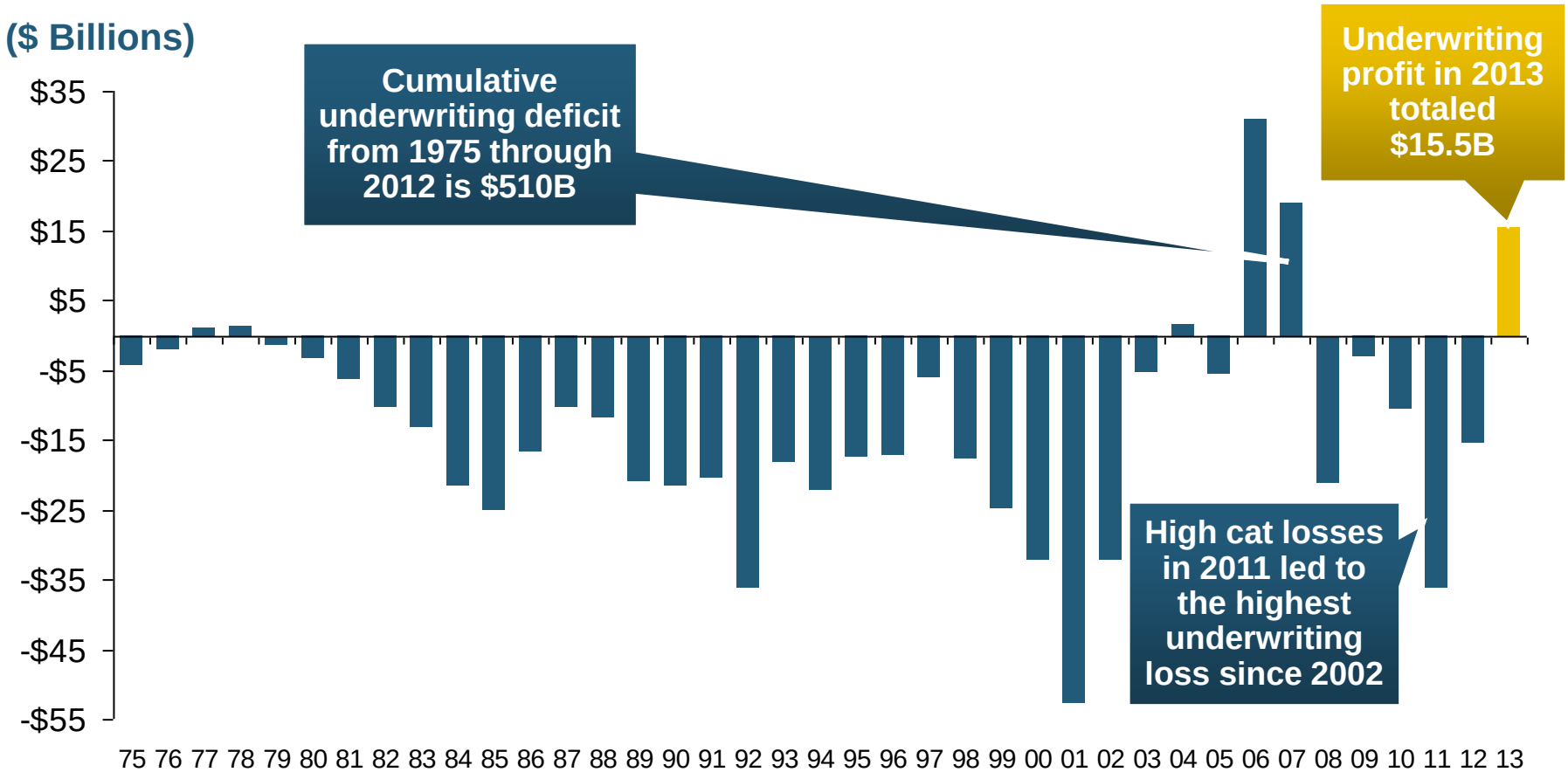
Number of Years with Underwriting Profits



Underwriting Profits Were Common Before the 1980s (40 of the 60 Years Before 1980 Had Combined Ratios Below 100) – But Then They Vanished. Not a Single Underwriting Profit Was Recorded in the 25 Years from 1979 Through 2003

* 2009 combined ratio excl. mort. and finl. guaranty insurers was 99.3, which would bring the 2000s total to 4 years with an u/w profit.
**Data for the 2010s is for the period 2010 through 2013.
Note: Data for 1920–1934 based on stock companies only.
Sources: Insurance Information Institute research from A.M. Best Data.

Underwriting Gain (Loss) 1975–2013*



Large Underwriting Losses Are *NOT* Sustainable in Current Investment Environment

* Includes mortgage and financial guaranty insurers in all years.

Sources: A.M. Best, ISO; Insurance Information Institute.

Combined Ratios by Predominant Business Segment, 2013 vs. 2012*

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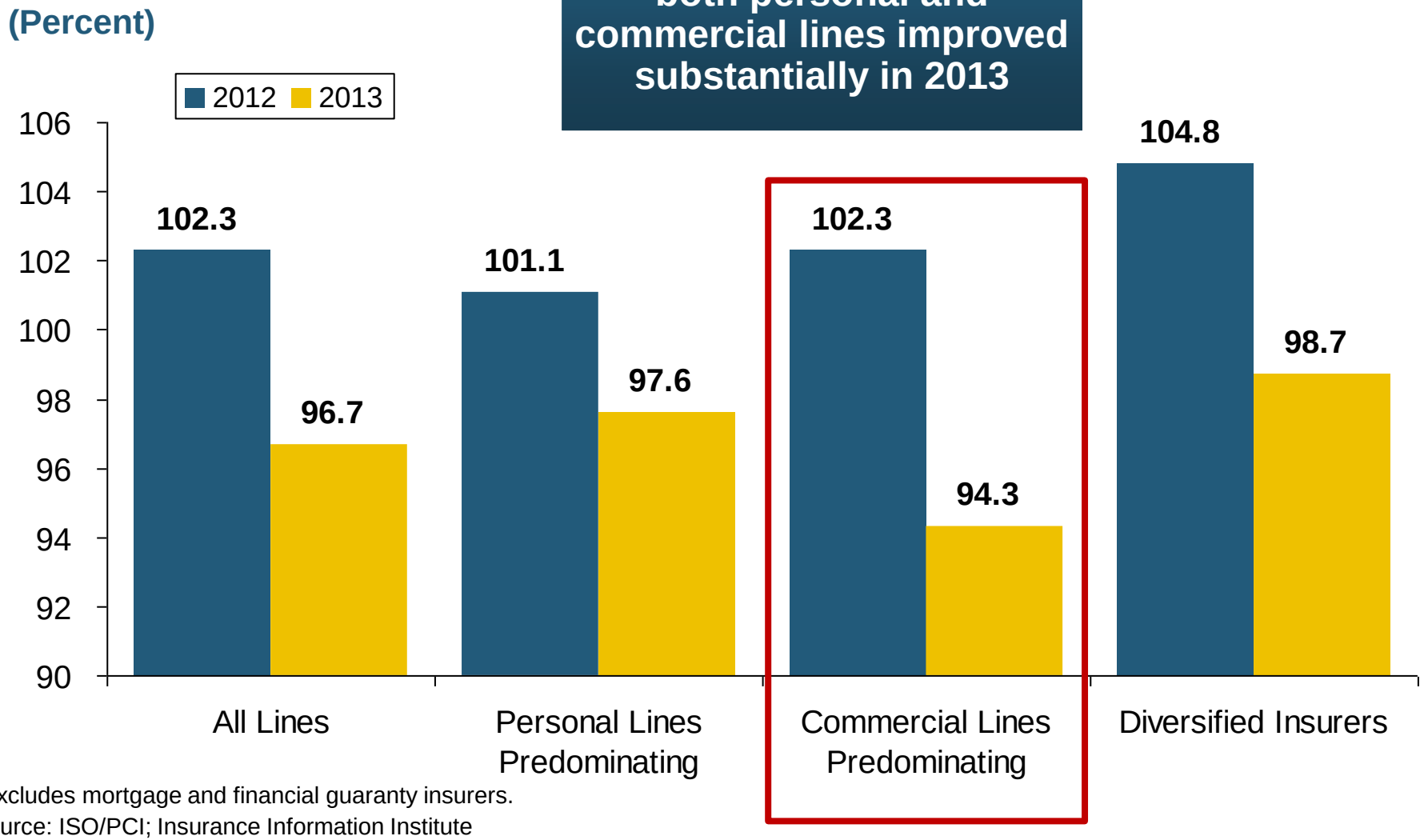
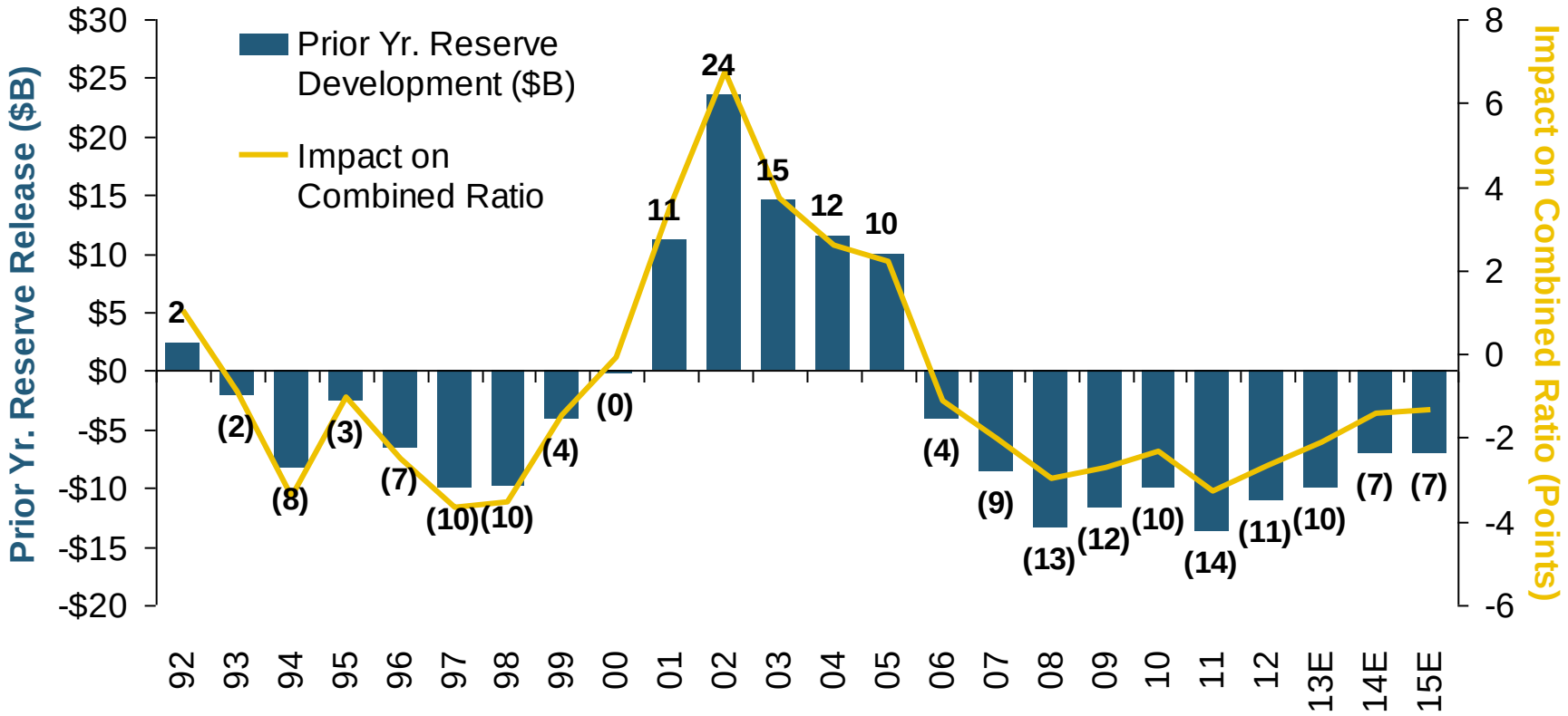
The combined ratios for both personal and commercial lines improved substantially in 2013



*Excludes mortgage and financial guaranty insurers.

Source: ISO/PCI; Insurance Information Institute

P/C Reserve Development, 1992–2015E



Note: 2005 reserve development excludes a $6 billion loss portfolio transfer between American Re and Munich Re. Including this transaction, total prior year adverse development in 2005 was $7 billion. The data from 2000 and subsequent years excludes development from financial guaranty and mortgage insurance.

Sources: A.M. Best, ISO, Barclays Research (estimates for 2013-2015).

P/C Estimated Loss Reserve Deficiency/ (Redundancy), Excl. Statutory Discount

Line of Business	2013
Personal Auto Liability	-$3.9B
Homeowners	-$0.4
Other Liab (incl. Prod Liab)	$7.5
Workers Compensation	$11.1
Commercial Multi Peril	$1.9
Commercial Auto Liability	$0.7
Medical Professional Liab.	-$3.5
Reinsurance—Nonprop Assumed	$1.0
All Other Lines*	-$4.6
Total Core Reserves	**$9.8**
Asbestos & Environmental	$11.2
Total P/C Industry	**$21.0B**

Source: A.M. Best, *P/C Review/Preview 2014;* Insurance Information Institute. *Excluding mortgage and financial guaranty segments

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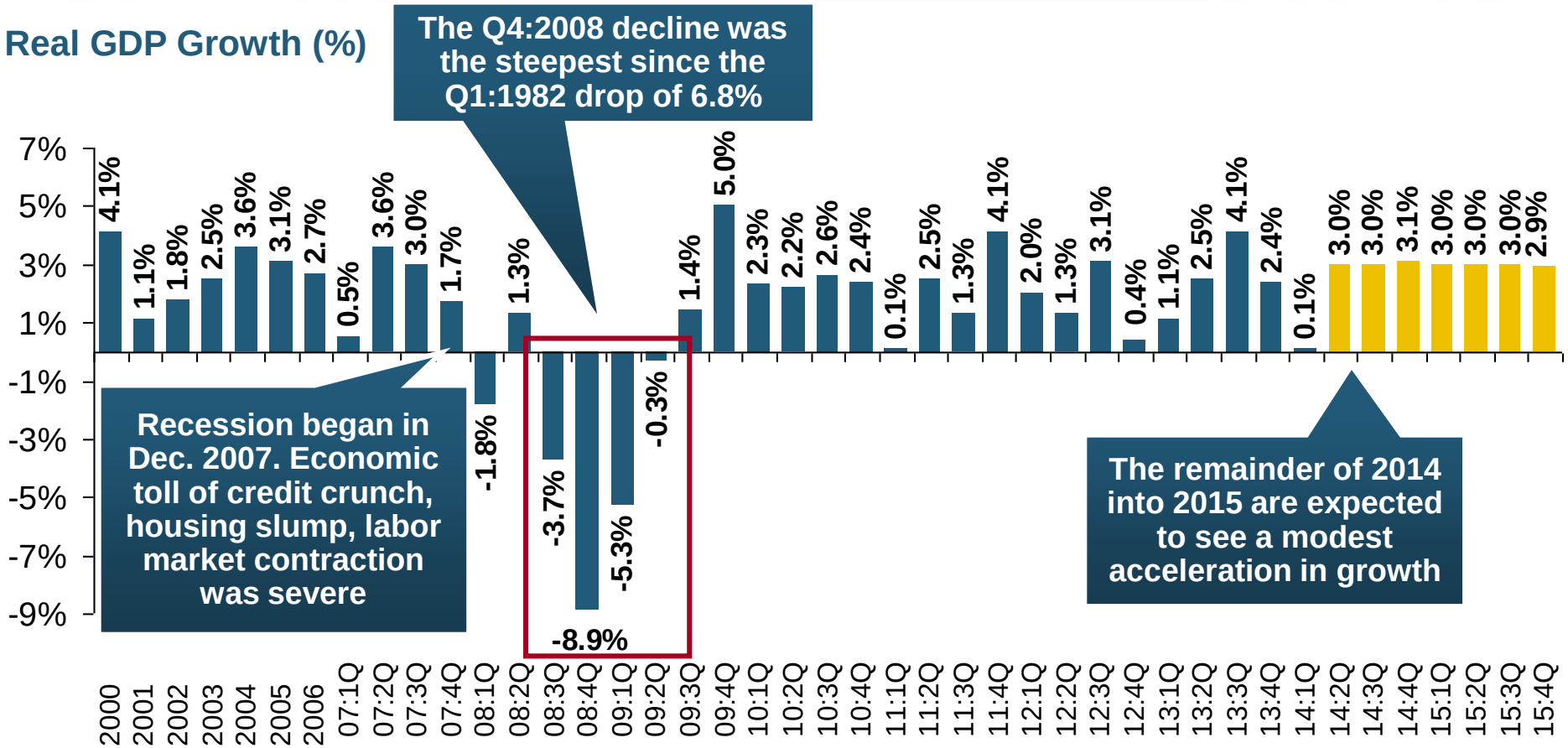
Some Key Drivers in the US Economy

Economic Factors Driving Exposure Growth and Insurer Performance

US Real GDP Growth*



Demand for Insurance Should Increase in 2014/15 as GDP Growth Accelerates Modestly and Gradually Benefits the Economy Broadly

* Estimates/Forecasts from Blue Chip Economic Indicators.

Source: US Department of Commerce, Blue Economic Indicators 4/14; Insurance Information Institute.

Unemployment and Underemployment Rates: Still Too High, But Falling

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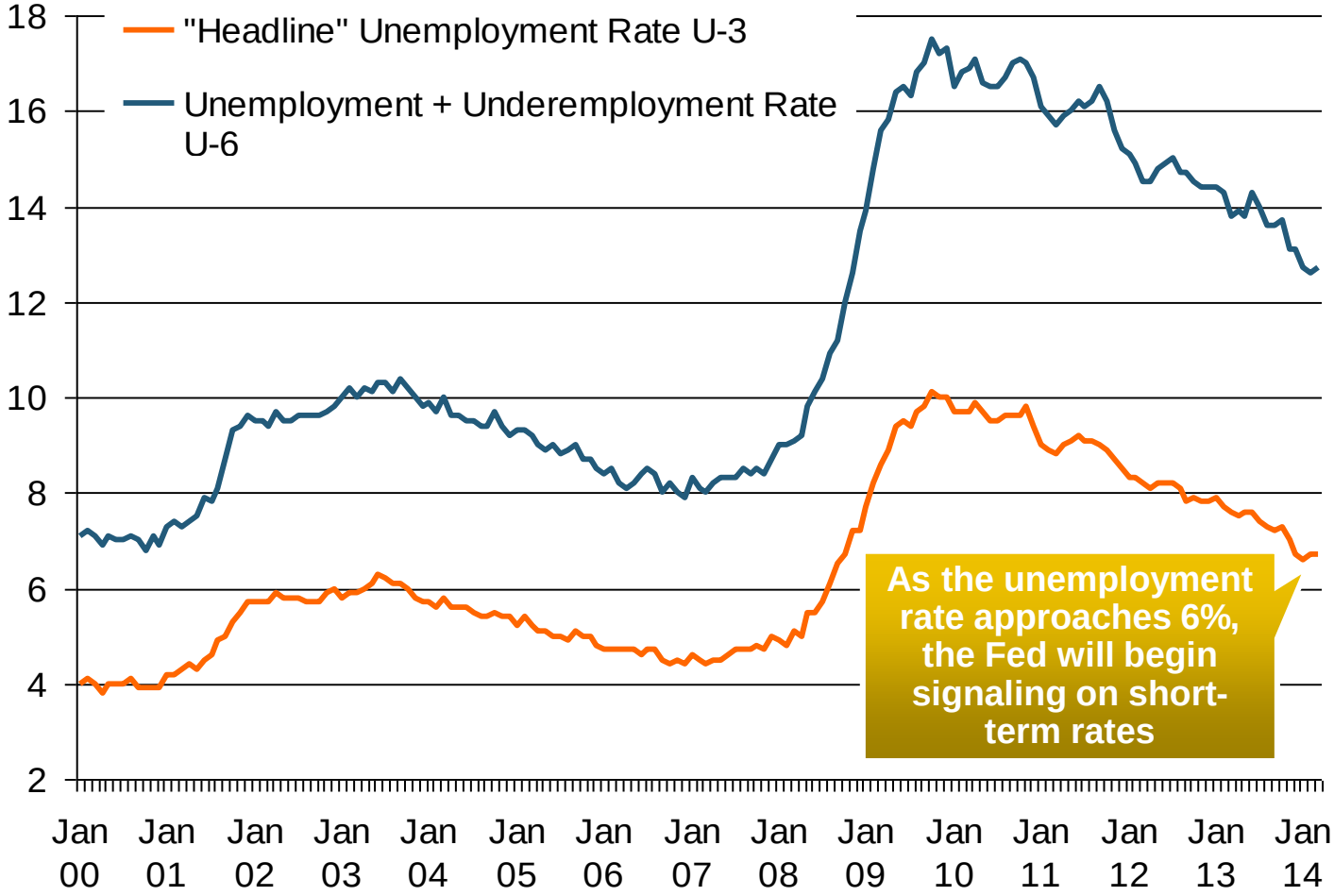
January 2000 through March 2014, Seasonally Adjusted (%)



U-6 went from 8.0% in March 2007 to 17.5% in October 2009; Stood at 12.7% in Mar. 2014. 8% to 10% is "normal."

As the unemployment rate approaches 6%, the Fed will begin signaling on short-term rates

"Headline" unemployment was 6.7% in March 2014. 4% to 6% is "normal."

Stubbornly high unemployment and underemployment constrain overall economic growth, but the job market is now clearly improving.

Source: US Bureau of Labor Statistics; Insurance Information Institute.

US Unemployment Rate Forecast

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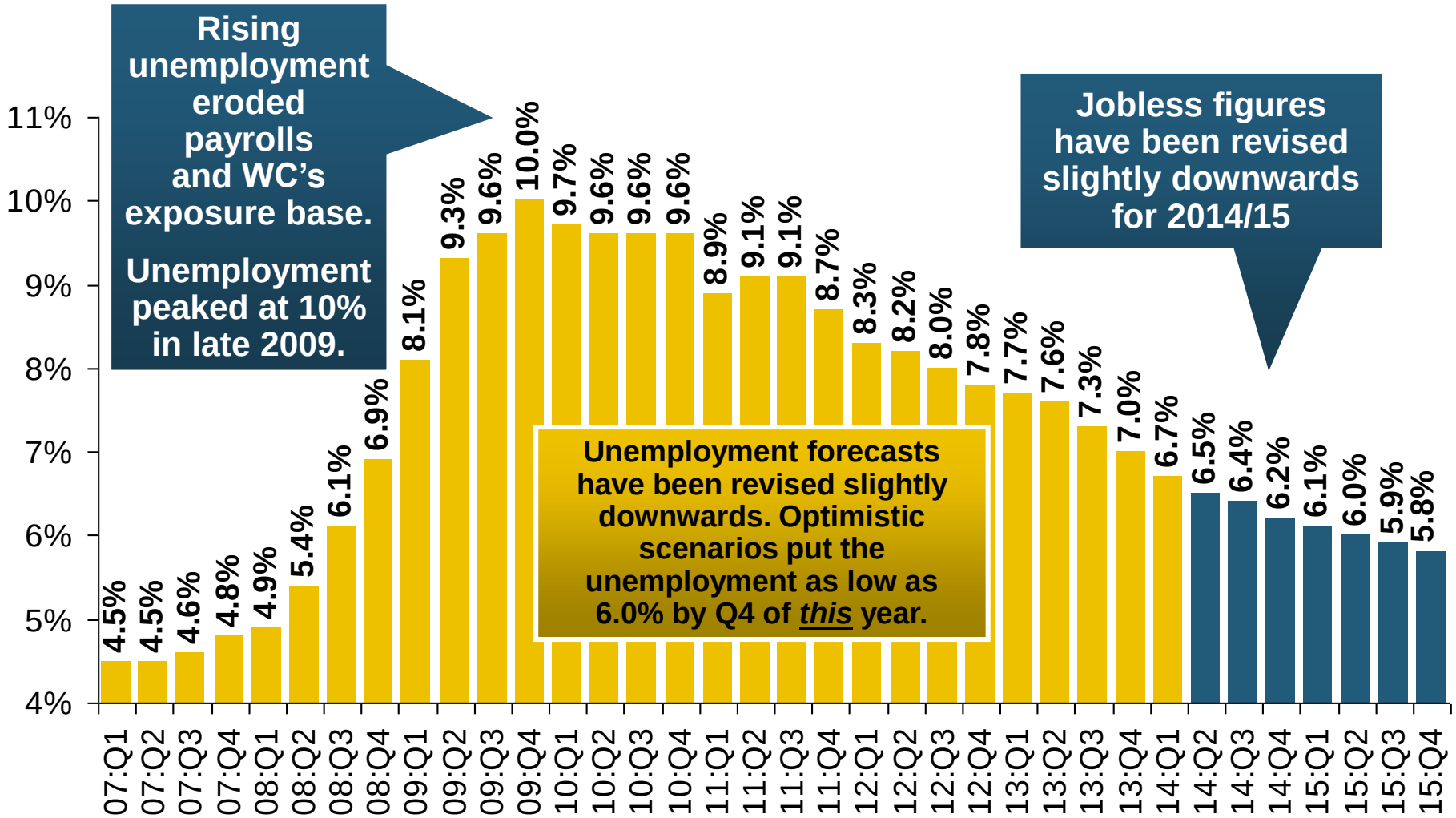
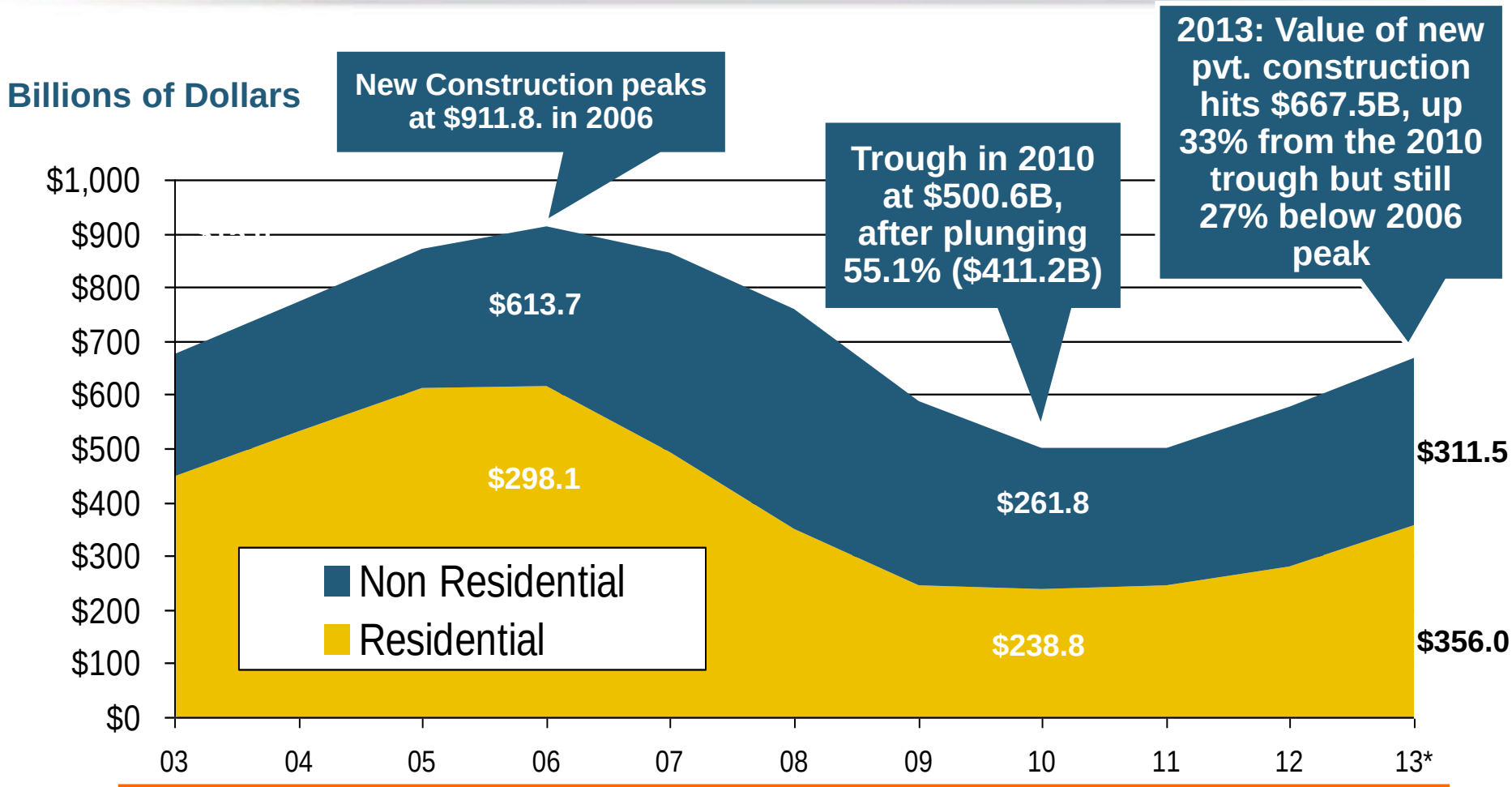
2007:Q1 to 2015:Q4F*



* = actual; = forecasts

Sources: US Bureau of Labor Statistics; Blue Chip Economic Indicators (4/14 edition); Insurance Information Institute.

Value of New Private Construction: Residential & Nonresidential, 2003-2013*

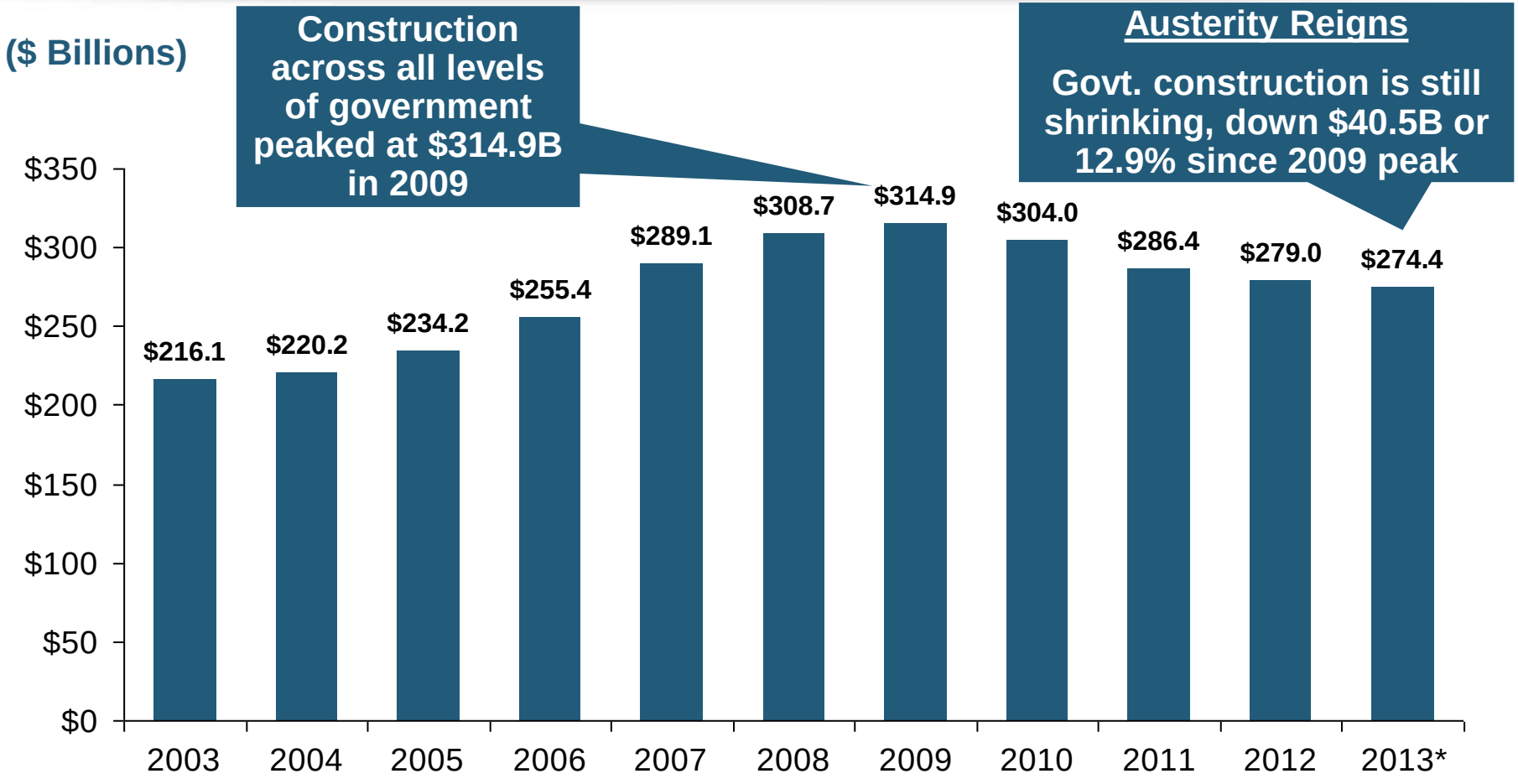


Private Construction Activity Is Moving in a Positive Direction though Remains Well Below Pre-Crisis Peak; Residential Dominates

*2013 figure is a seasonally adjusted annual rate as of December.

Sources: US Department of Commerce; Insurance Information Institute.

Value of New Federal, State and Local Government Construction: 2003-2013*

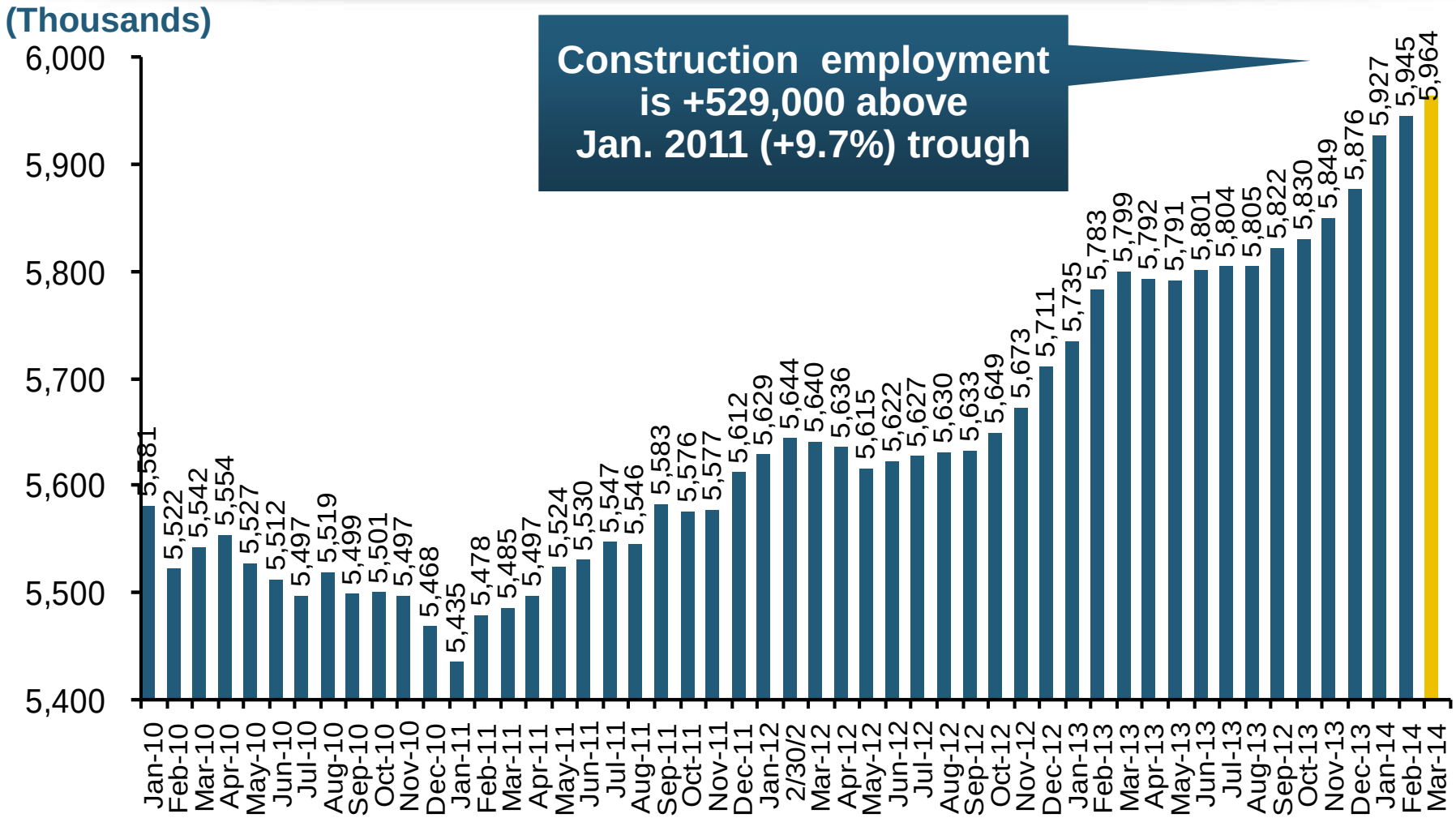


Government Construction Spending Peaked in 2009, Helped by Stimulus Spending, but Continues to Contract As State/Local Governments Grapple with Deficits and Federal Sequestration Takes Hold

*2013 figure is a seasonally adjusted annual rate as of December.

Sources: US Department of Commerce; Insurance Information Institute.

Construction Employment, Jan. 2010—March 2014*



Construction and manufacturing employment constitute 1/3 of all payroll exposure.

*Seasonally adjusted.

Sources: US Bureau of Labor Statistics at http://data.bls.gov; Insurance Information Institute.

Dollar Value* of Manufacturers' Shipments Monthly, Jan. 1992—Dec. 2013

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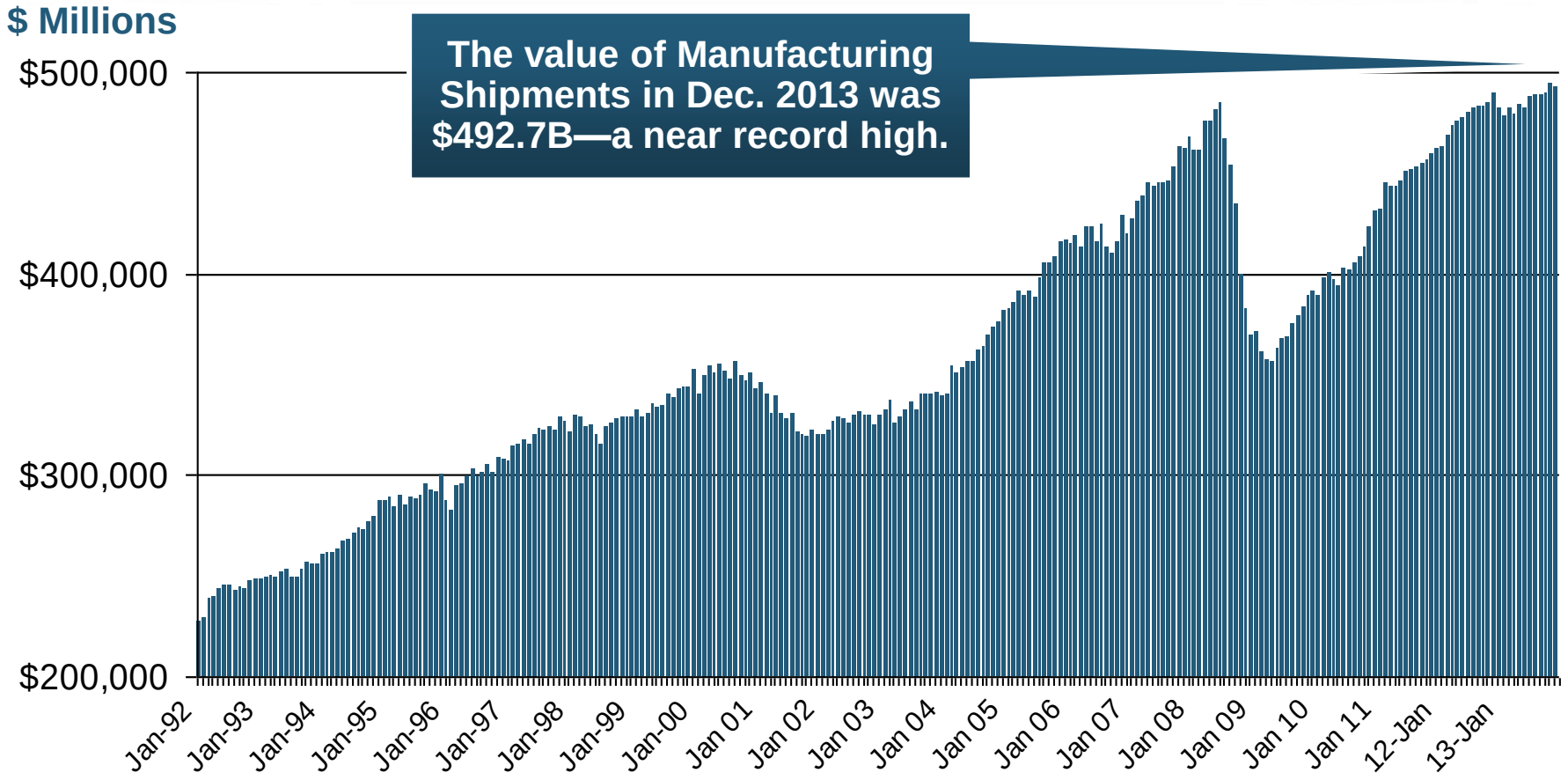
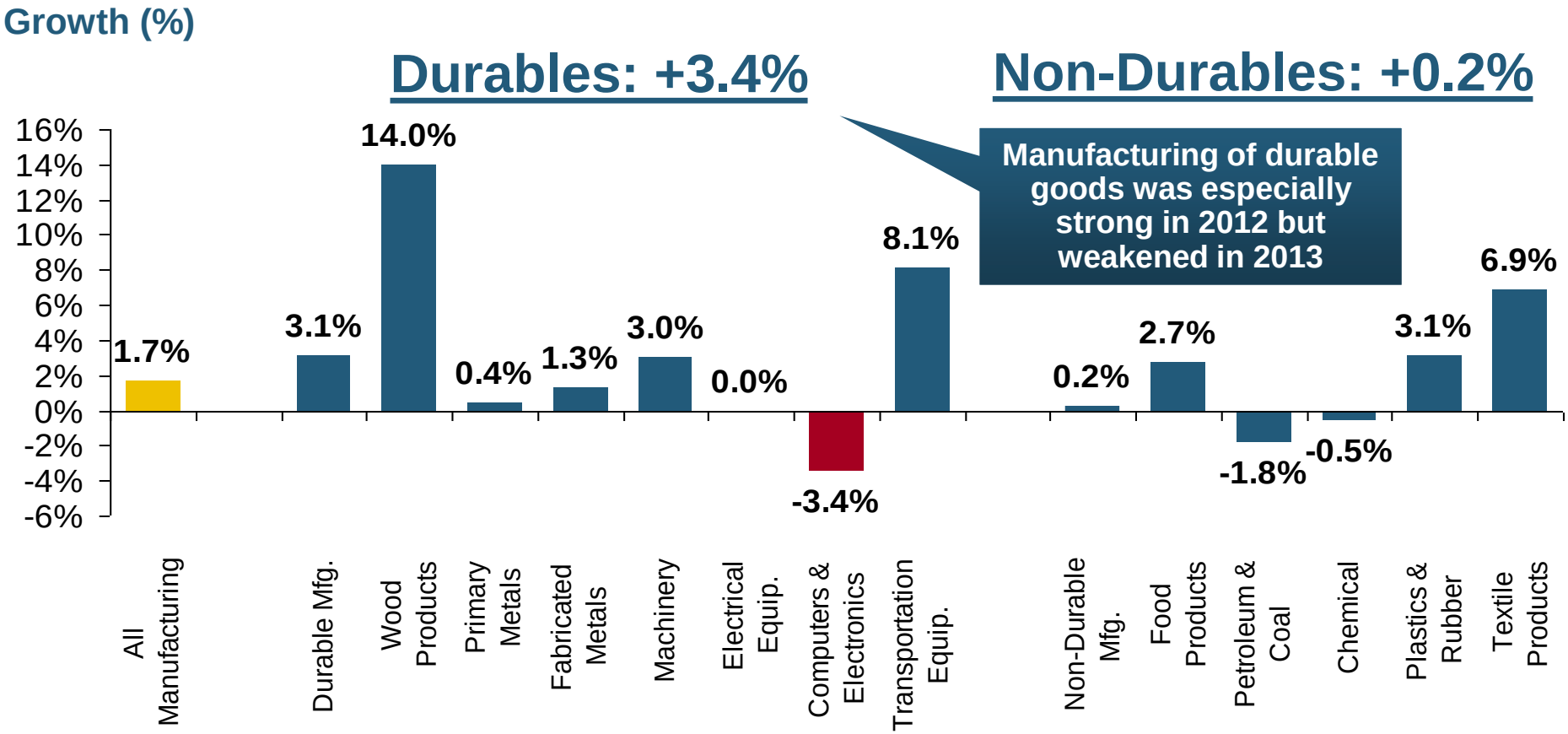


Monthly shipments in Dec. 2013 exceeded the pre-crisis (July 2008) peak. Manufacturing is energy-intensive and growth leads to gains in many commercial exposures: WC, Commercial Auto, Marine, Property, and various Liability Coverages.

*seasonally adjusted; Dec. 2013 is preliminary; data published February 4, 2014.
Source: U.S. Census Bureau, *Full Report on Manufacturers' Shipments, Inventories, and Orders,* http://www.census.gov/manufacturing/m3/

Manufacturing Growth for Selected Sectors, 2013 vs. 2012*



Manufacturing Is Expanding—Albeit Slowly—Across a Number of Sectors that Will Contribute to Growth in Insurable Exposures Including: WC, Commercial Property, Commercial Auto and Many Liability Coverages

*Seasonally adjusted; Date are YTD comparing data through November 2013 to the same period in 2012.
Source: U.S. Census Bureau, *Full Report on Manufacturers' Shipments, Inventories, and Orders,* http://www.census.gov/manufacturing/m3/

Manufacturing Employment, Jan. 2010—March 2014*

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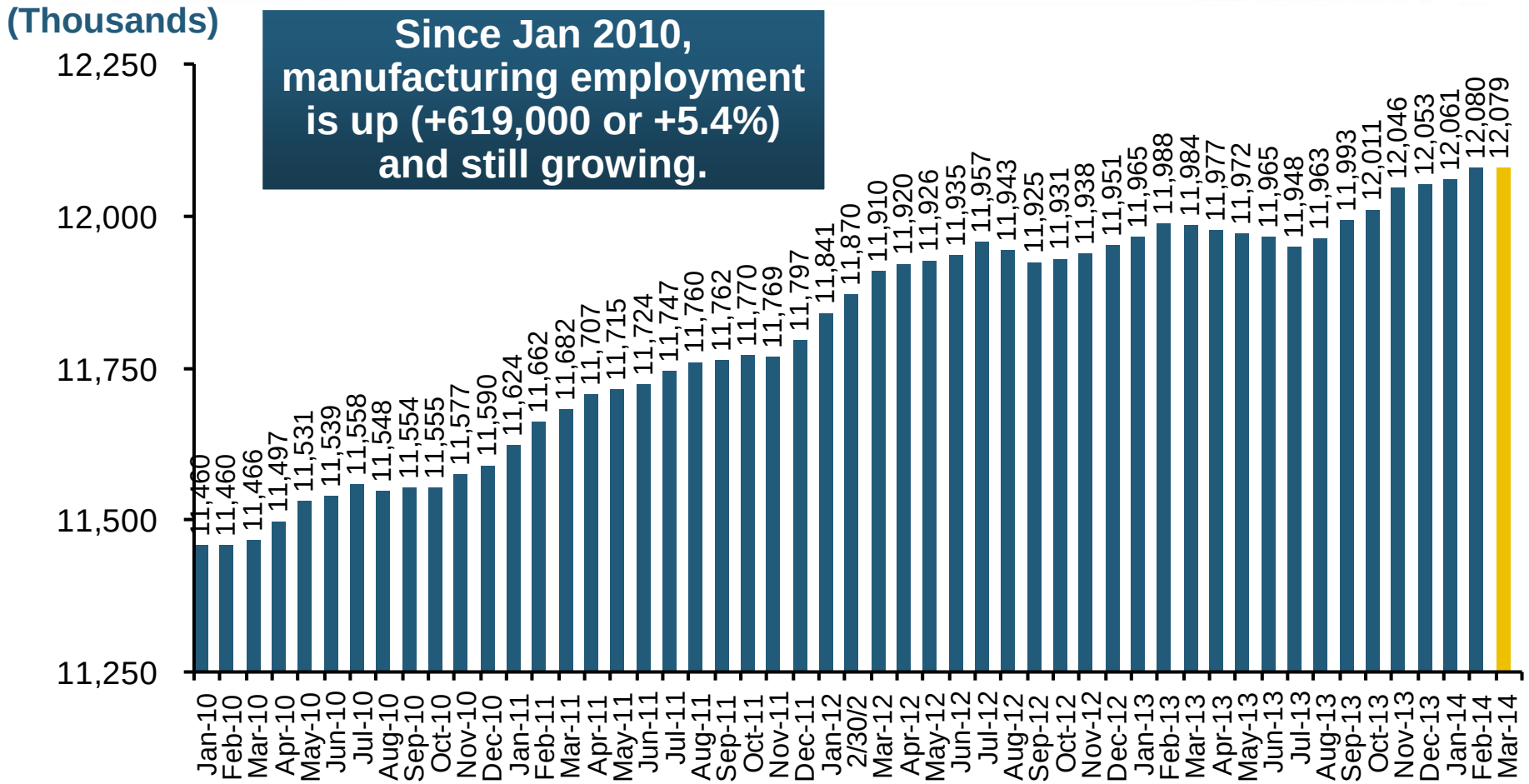
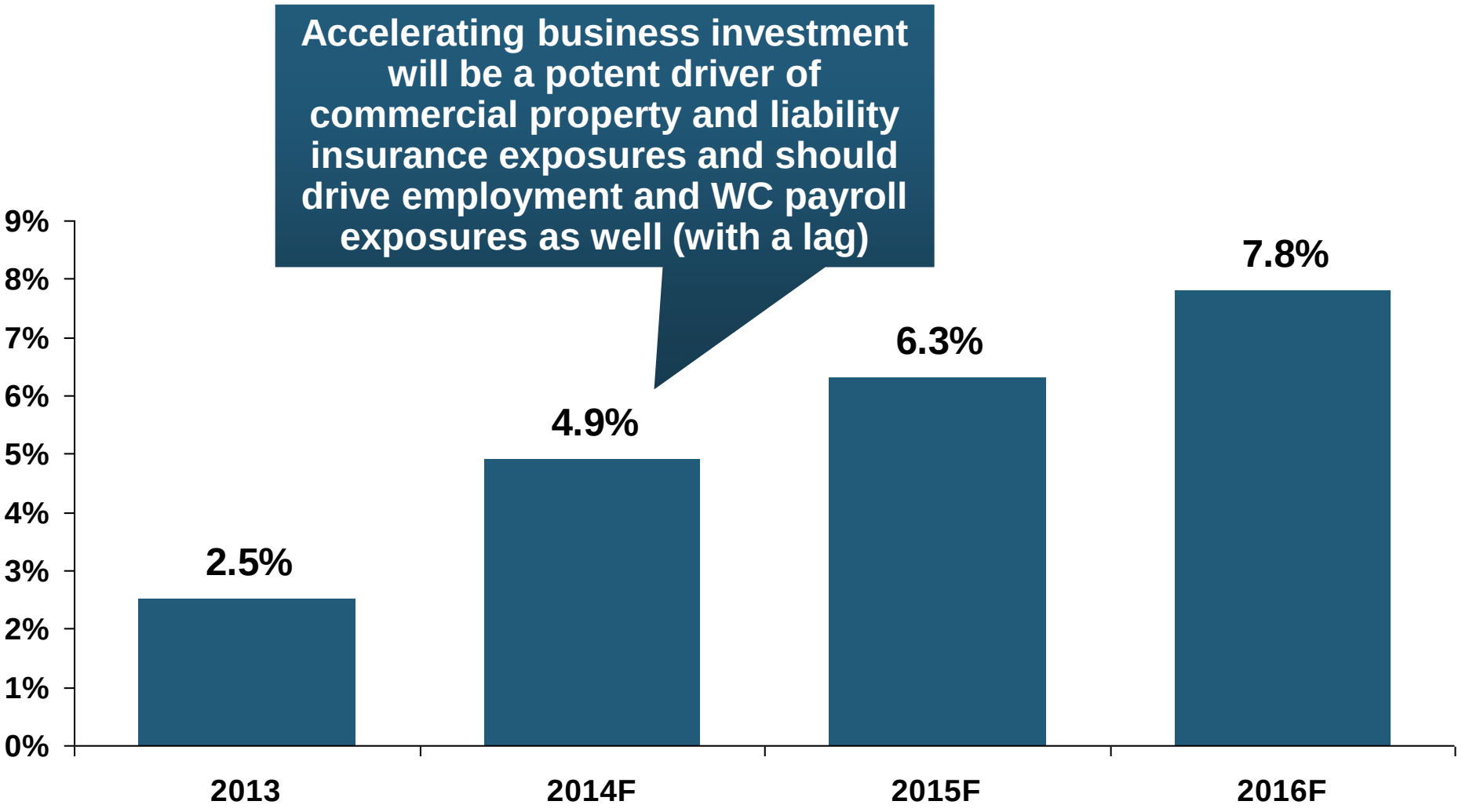


Manufacturing employment is a surprising source of strength in the economy. Employment in the sector is at a multi-year high.

*Seasonally adjusted; Feb. and Mar. 2014 are preliminary

Sources: US Bureau of Labor Statistics at http://data.bls.gov; Insurance Information Institute.

Business Investment: Expected to Accelerate, Fueling Commercial Exposure Growth



Source: IHS Global Insights as of Jan. 13, 2014; Insurance Information Institute.

12 Industries for the Next 10 Years: Insurance Solutions Needed

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- Health Care
- Health Sciences
- Energy (Traditional)
- Alternative Energy
- Petrochemical
- Agriculture
- Natural Resources
- Technology (incl. Biotechnology)
- Light Manufacturing
- Insourced Manufacturing
- *Export-Oriented Industries*
- Shipping (*Rail*, *Marine*, Trucking, *Pipelines*)

Many industries are poised for growth, though insurers' ability to capitalize on these industries varies widely

U.S. Natural Has Imports and Exports, 1990 - 2040

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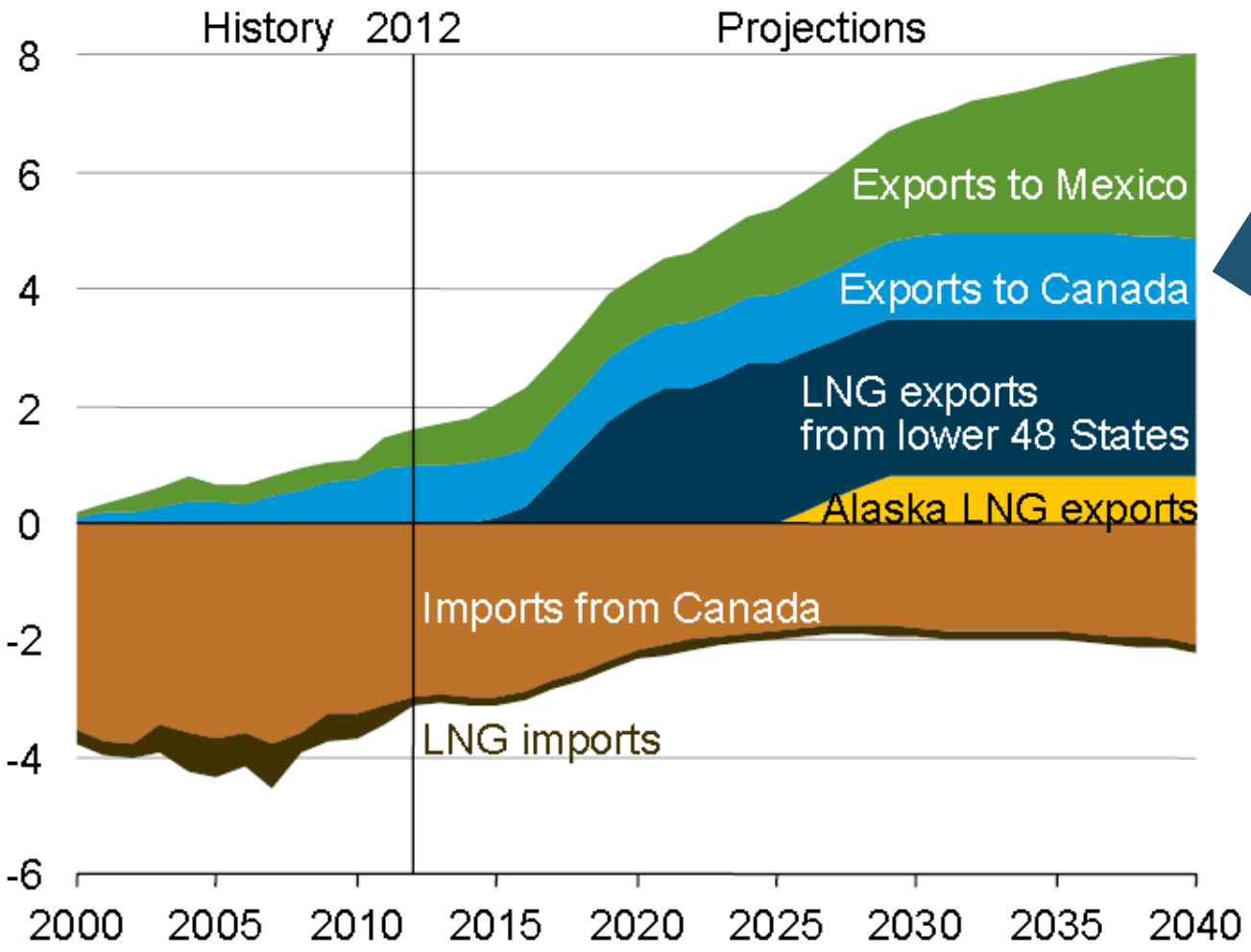
Trillions of Cubic Feet



The US is now the largest gas producer in the world, though Russia is the largest exporter. The US needs to invest in its pipeline and LNG infrastructure and expedite regulatory approval to realize its full export potential

Sources: US Energy Information Administration, *Annual Energy Outlook 2014 Early Release Overview;* ;Insurance Information Institute.

U.S. Electricity Generation by Fuel, 1990 - 2040

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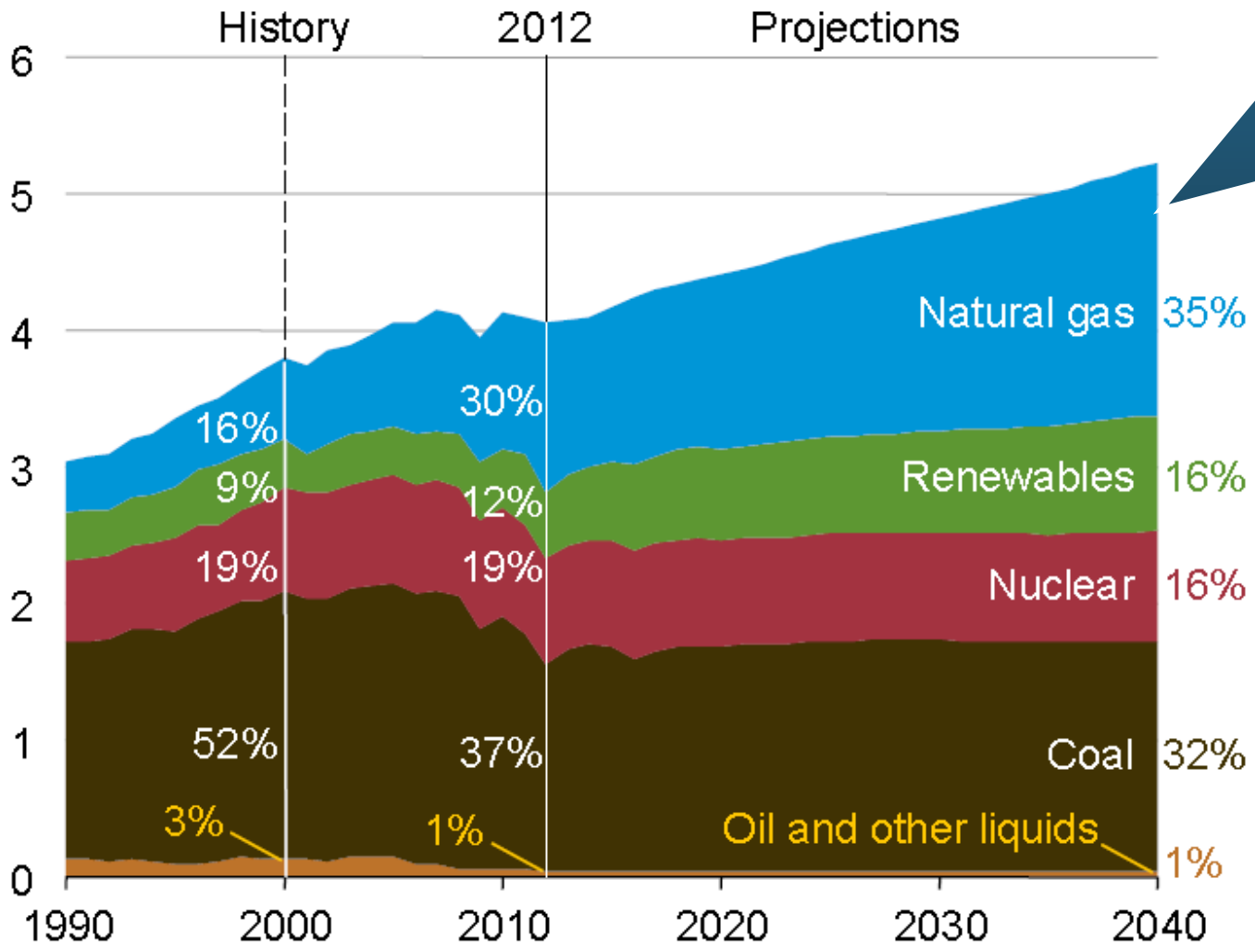
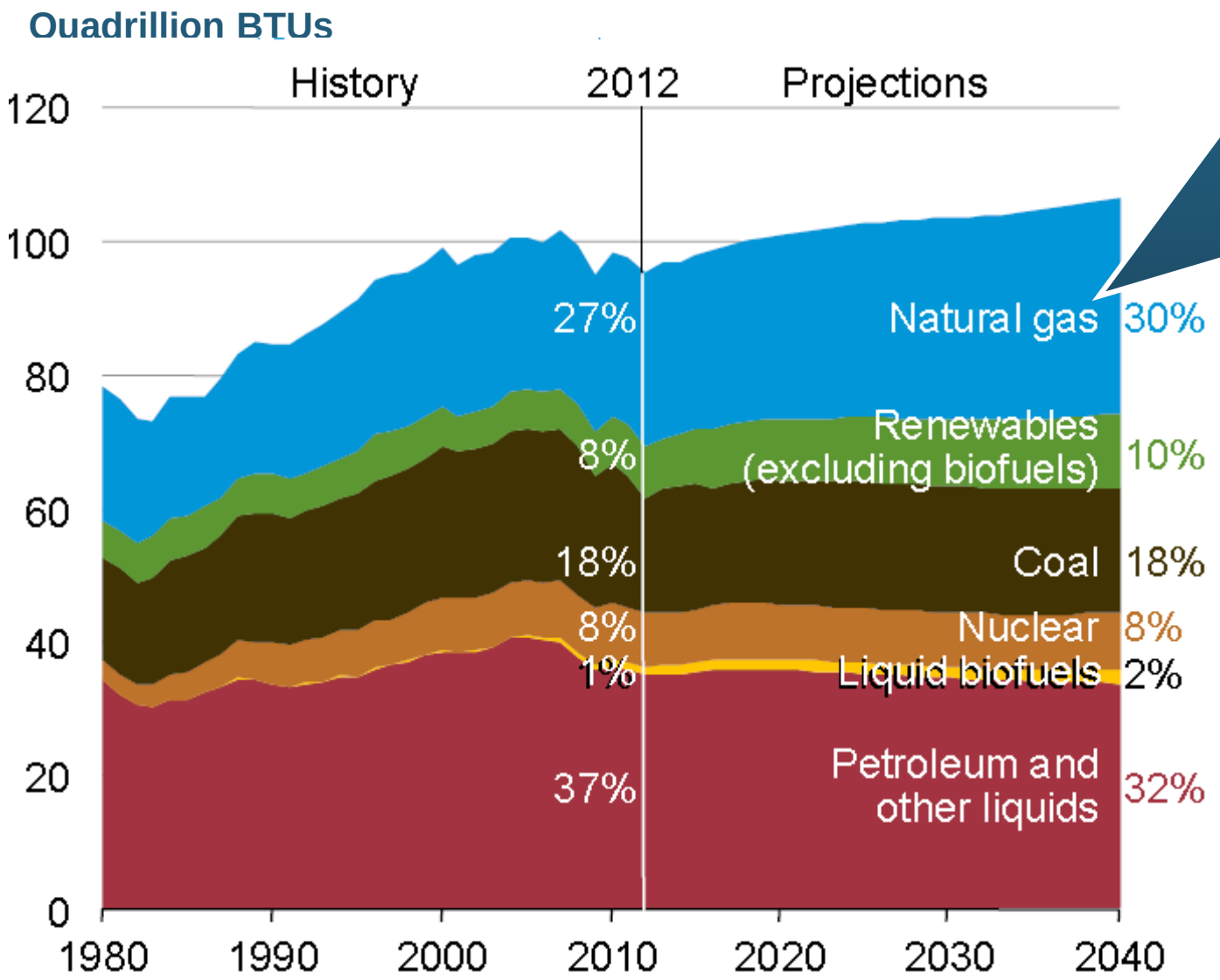
Trillions of kilowatt Hours



Electricity consumption in the US will rise steadily along with the fuel shares of natural gas and renewables

Sources: US Energy Information Administration, *Annual Energy Outlook 2014 Early Release Overview;* ;Insurance Information Institute.

U.S. Primary Energy Consumption by Fuel, 1990 - 2040



Energy consumption in the US will rise steadily with natural gas fueling most of the additional consumption

Sources: US Energy Information Administration, *Annual Energy Outlook 2014 Early Release Overview;* ;Insurance Information Institute.

U.S. Petroleum and Other Liquid Fuel Supplies by Source, 1990 - 2040

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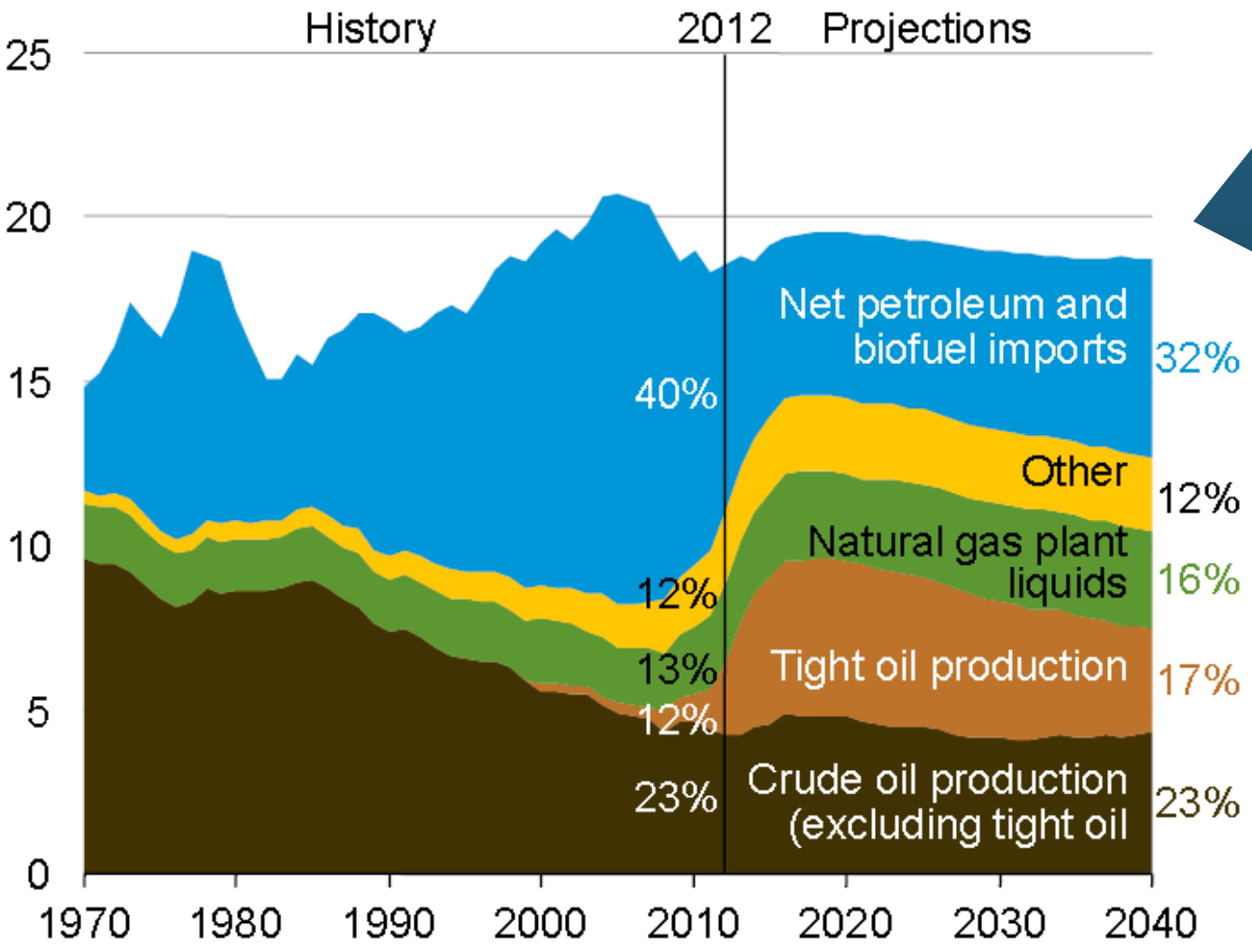
Millions of Barrels per Day



Liquid fuel consumption is expected to change little through 2040, though "tight" oil will account for a much larger share thereby reducing imports of petroleum products

Sources: US Energy Information Administration, *Annual Energy Outlook 2014 Early Release Overview;* ;Insurance Information Institute.

Oil & Gas Extraction Employment, Jan. 2010—March 2014*

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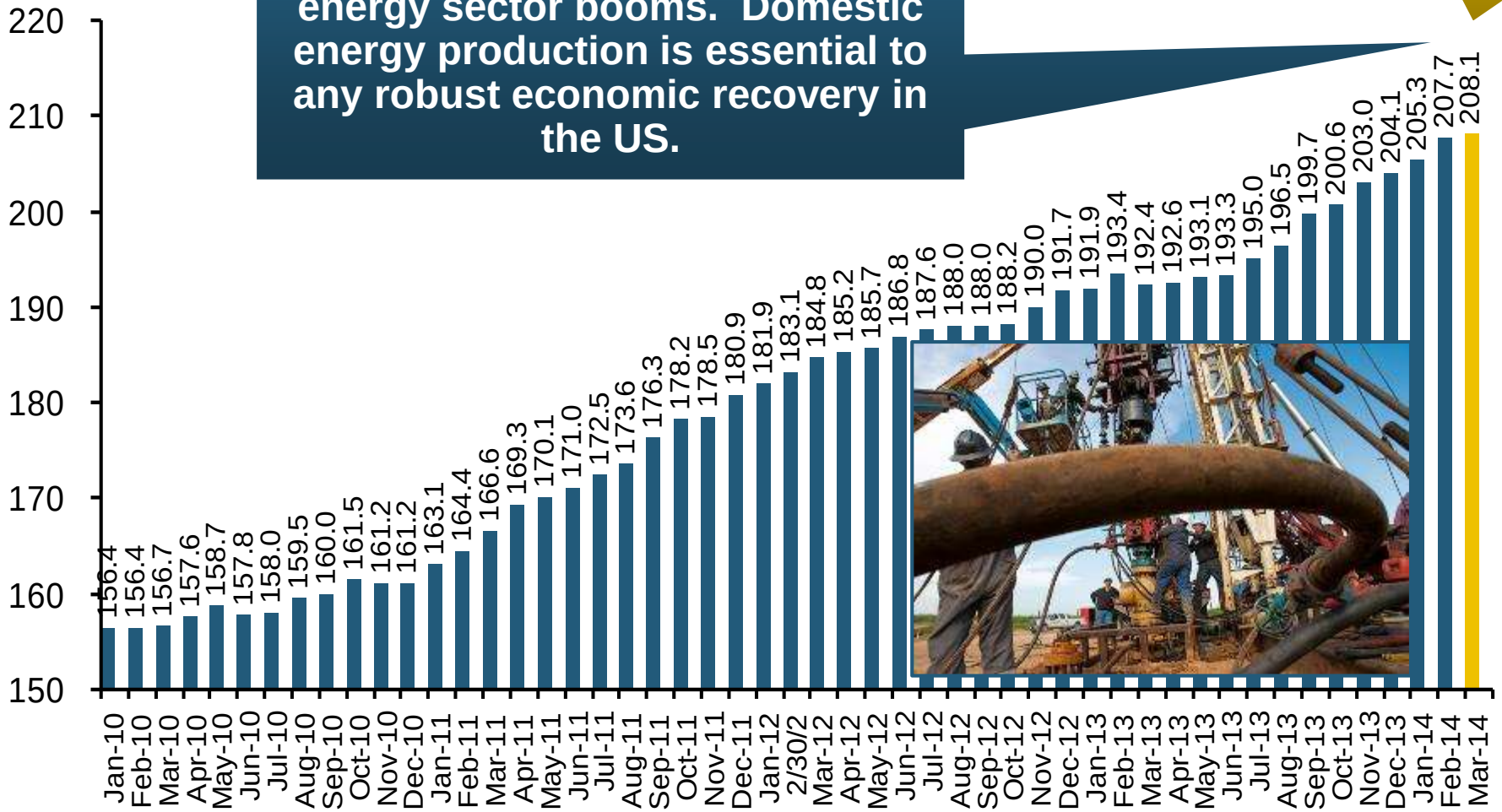
(Thousands)

Oil and gas extraction employment is up 33.1% since Jan. 2010 as the energy sector booms. Domestic energy production is essential to any robust economic recovery in the US.

Highest since Aug. 1986



*Seasonally adjusted

Sources: US Bureau of Labor Statistics at http://data.bls.gov; Insurance Information Institute.

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CYBER RISK

Cyber Risk is a Rapidly Emerging Exposure for Businesses Large and Small in Every Industry

NEW III White Paper:
http://www.iii.org/assets/docs/pdf/paper_CyberRisk_2013.pdf

Data Breaches 2005-2013, by Number of Breaches and Records Exposed

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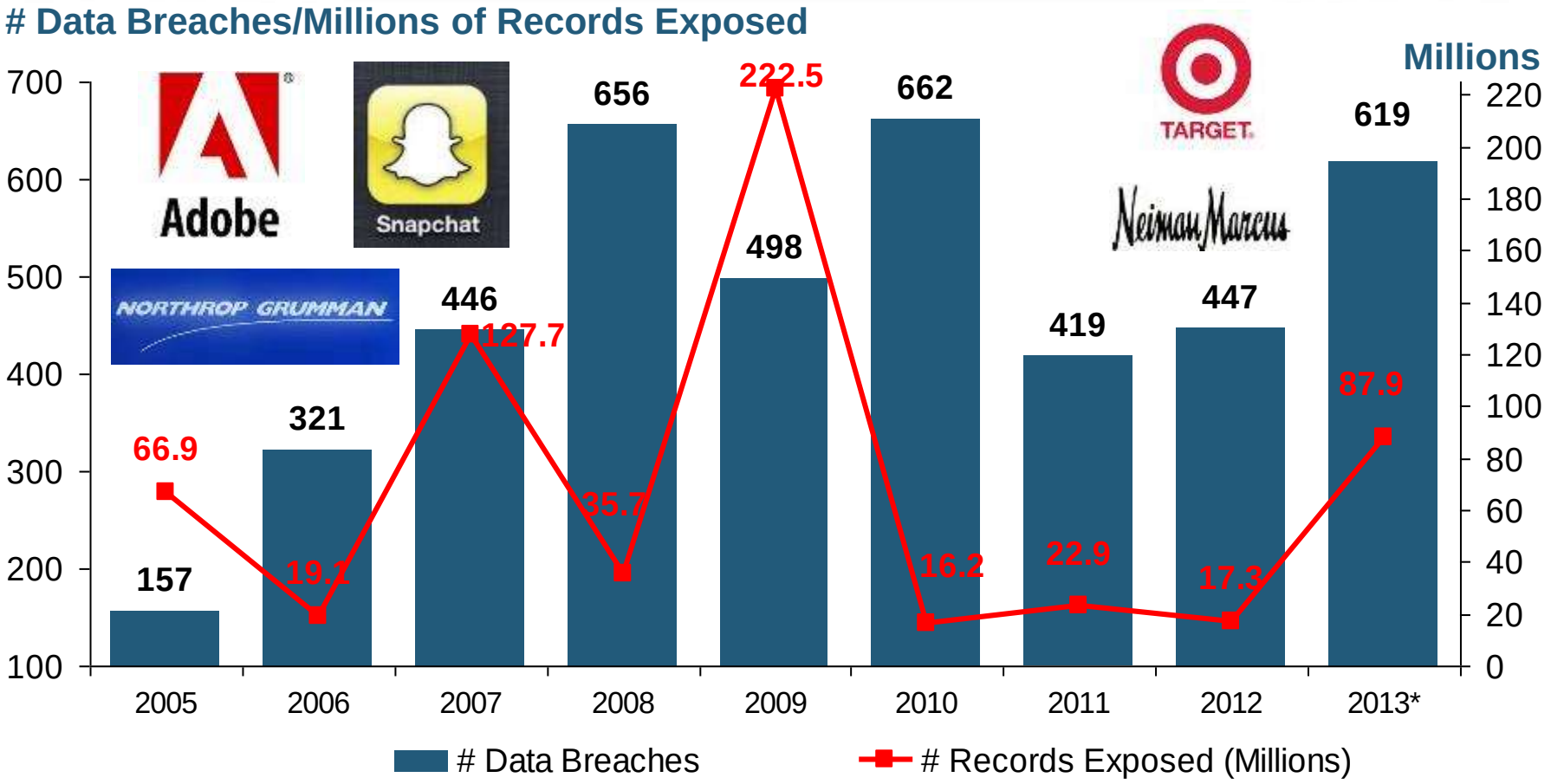

The Total Number of Data Breaches (+38%) and Number of Records Exposed (+408%) in 2013 Soared

* 2013 figures as of Jan. 1, 2014 from the ITRC updated to an additional 30 million records breached (Target) as disclosed in Jan. 2014.
Source: Identity Theft Resource Center.

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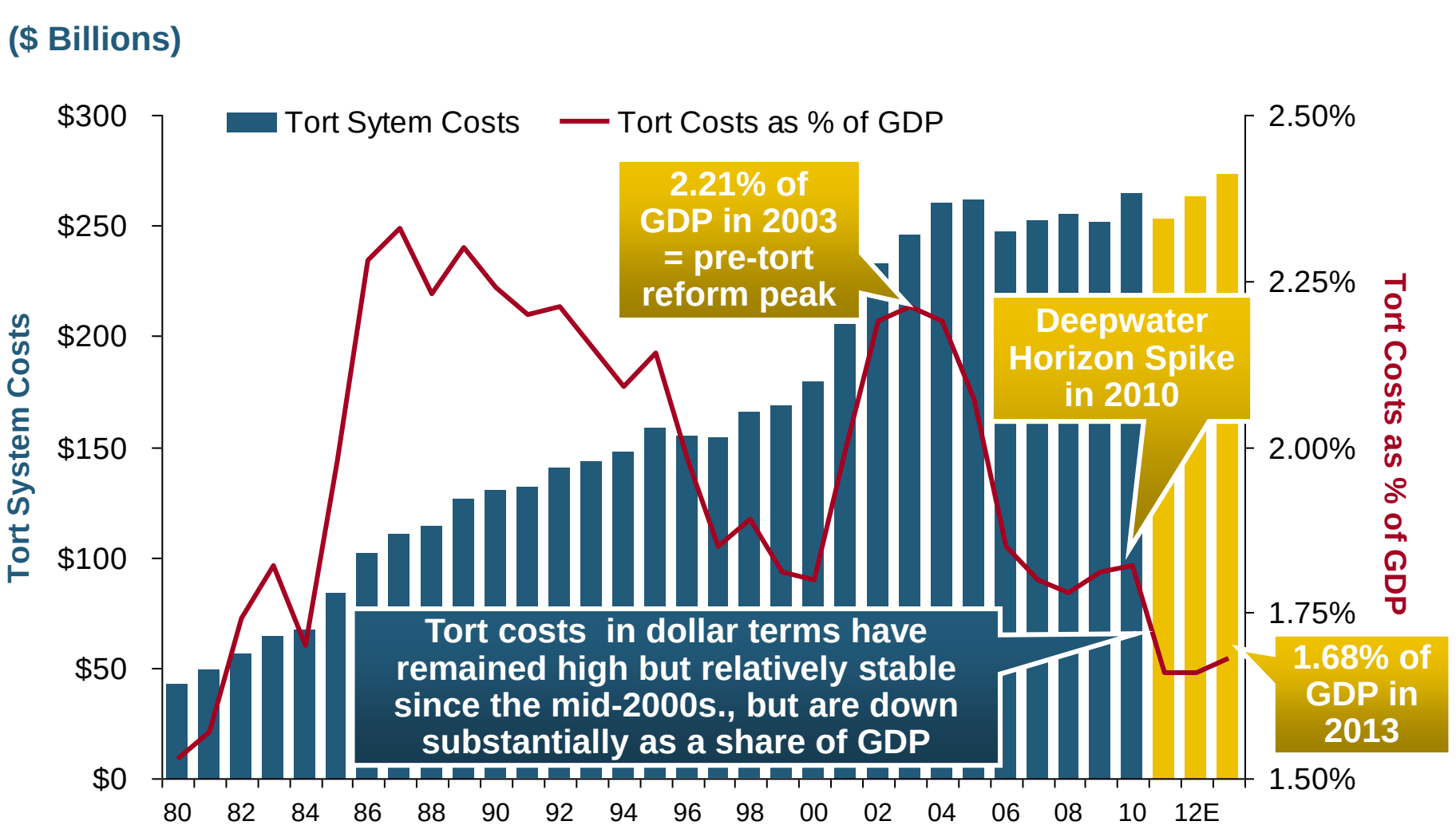
Shifting Legal Liability & Tort Environment

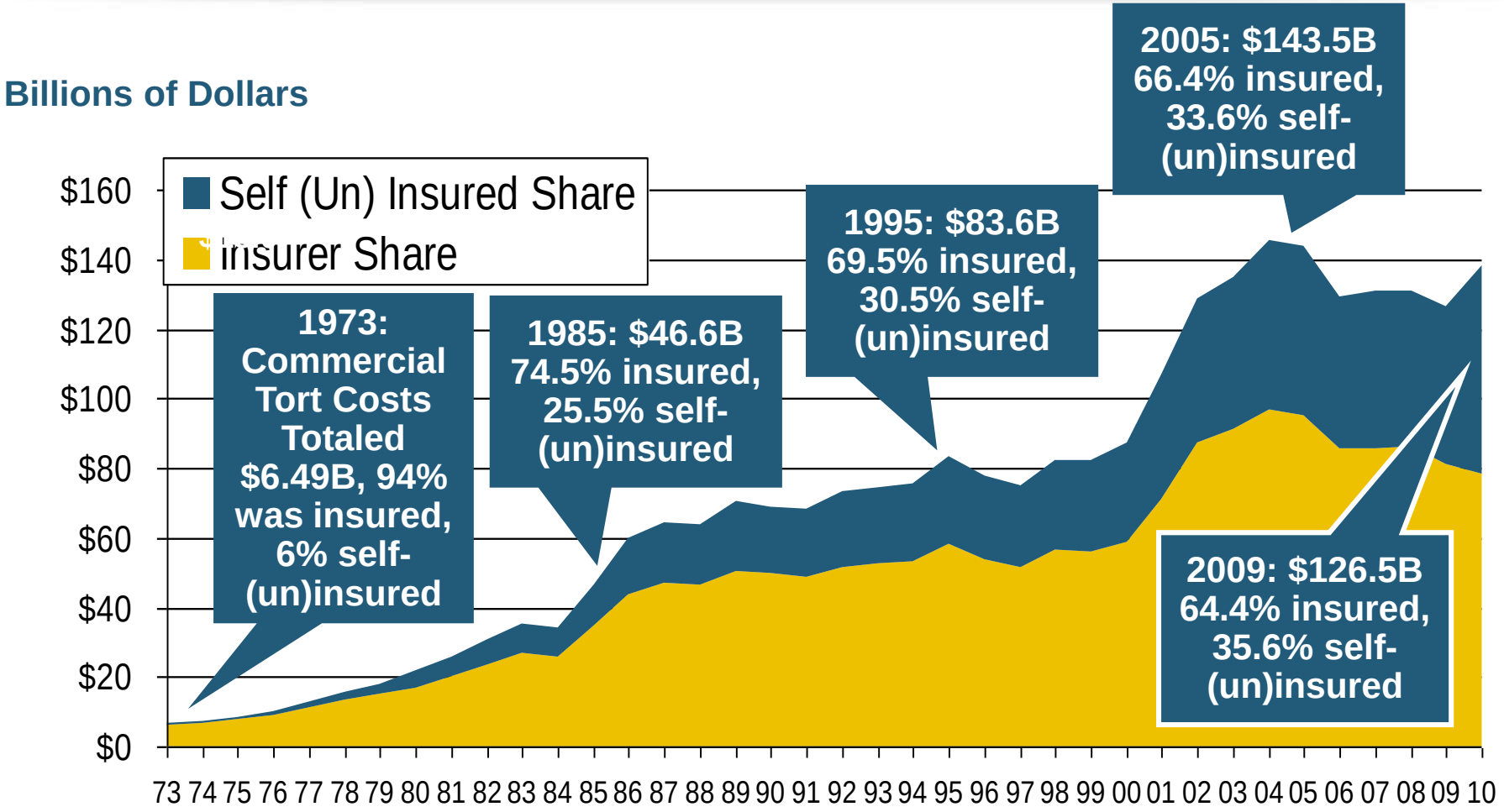
Is the Tort Pendulum Swinging Against Insurers?

Over the Last Three Decades, Total Tort Costs as a % of GDP Appear Somewhat Cyclical, 1980-2013E



Sources: Towers Watson, *2011 Update on US Tort Cost Trends*, Appendix 1A

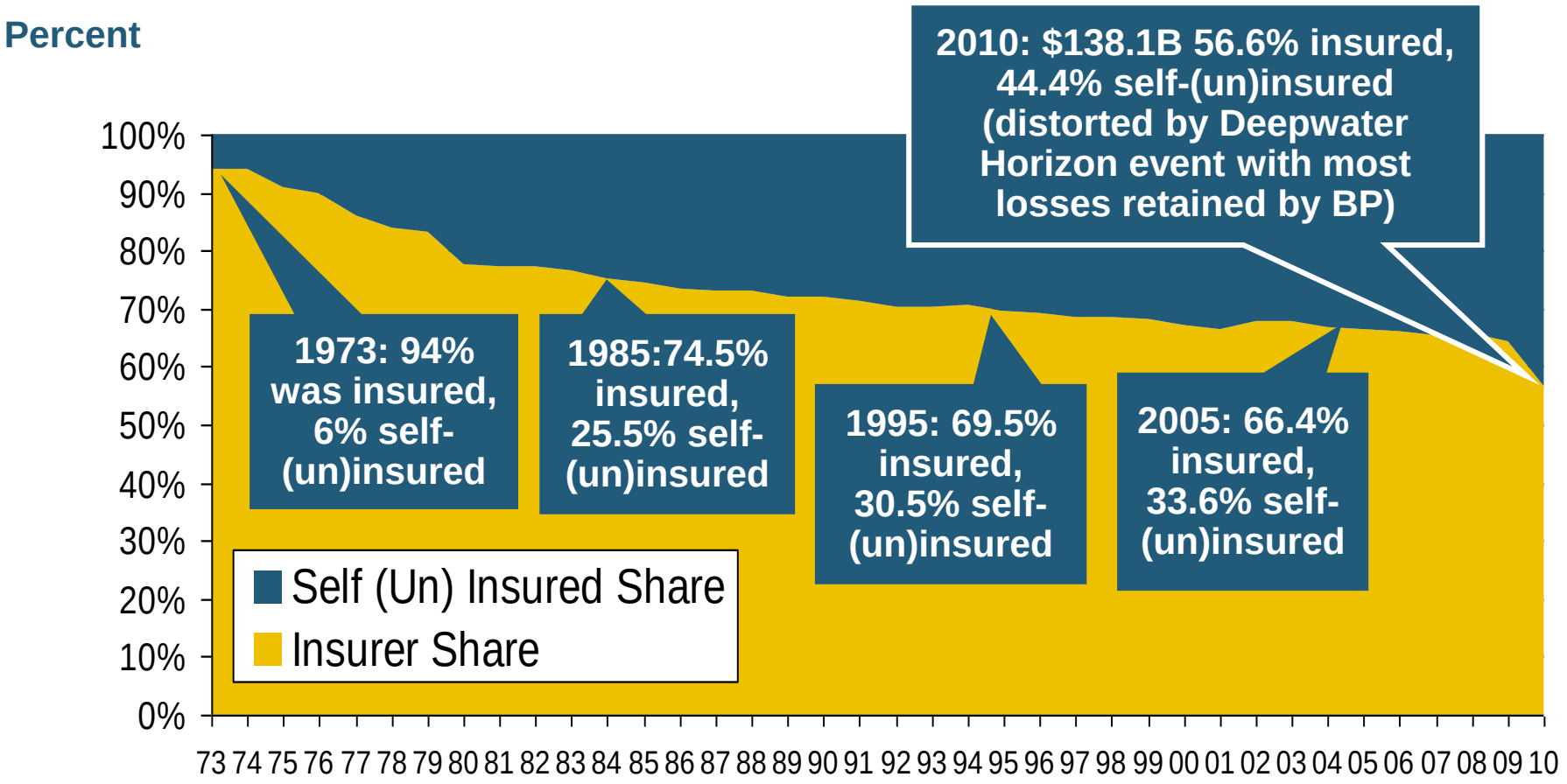
Commercial Lines Tort Costs: Insured vs. Self-(Un)Insured Shares, 1973-2010



Tort Costs and the Share Retained by Risks Both Grew Rapidly from the mid-1970s to mid-2000s, When Tort Costs Began to Fall But Self-Insurance Shares Continued to Rise

Sources: Towers Watson, *2011 Update on US Tort Cost Trends*, III Calculations based on data from Appendix 4.

Commercial Lines Tort Costs: Insured vs. Self-(Un)Insured Shares, 1973-2010



The Share of Tort Costs Retained by Risks Has Been Steadily Increasing for Nearly 40 Years. This Trend Contributes Has Left Insurers With Less Control Over Pricing.

Sources: Towers Watson, *2011 Update on US Tort Cost Trends*, III Calculations based on data from Appendix 4.

Business Leaders Ranking of Liability Systems in 2012

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Best States

1. Delaware
2. Nebraska
3. Wyoming
4. Minnesota
5. Kansas
6. Idaho
7. Virginia
8. North Dakota
9. Utah
10. Iowa

New in 2012

- Wyoming
- Minnesota
- Kansas
- Idaho

Drop-offs

- Indiana
- Colorado
- Massachusetts
- South Dakota

Worst States

41. Florida
42. Oklahoma
43. Alabama
44. New Mexico
45. Montana
46. ***Illinois***
47. California
48. Mississippi
49. Louisiana
50. West Virginia

Newly Notorious

- Oklahoma

Rising Above

- Arkansas

Source: US Chamber of Commerce 2012 State Liability Systems Ranking Study; Insurance Info. Institute.

The Nation's Judicial Hellholes: 2012/2013

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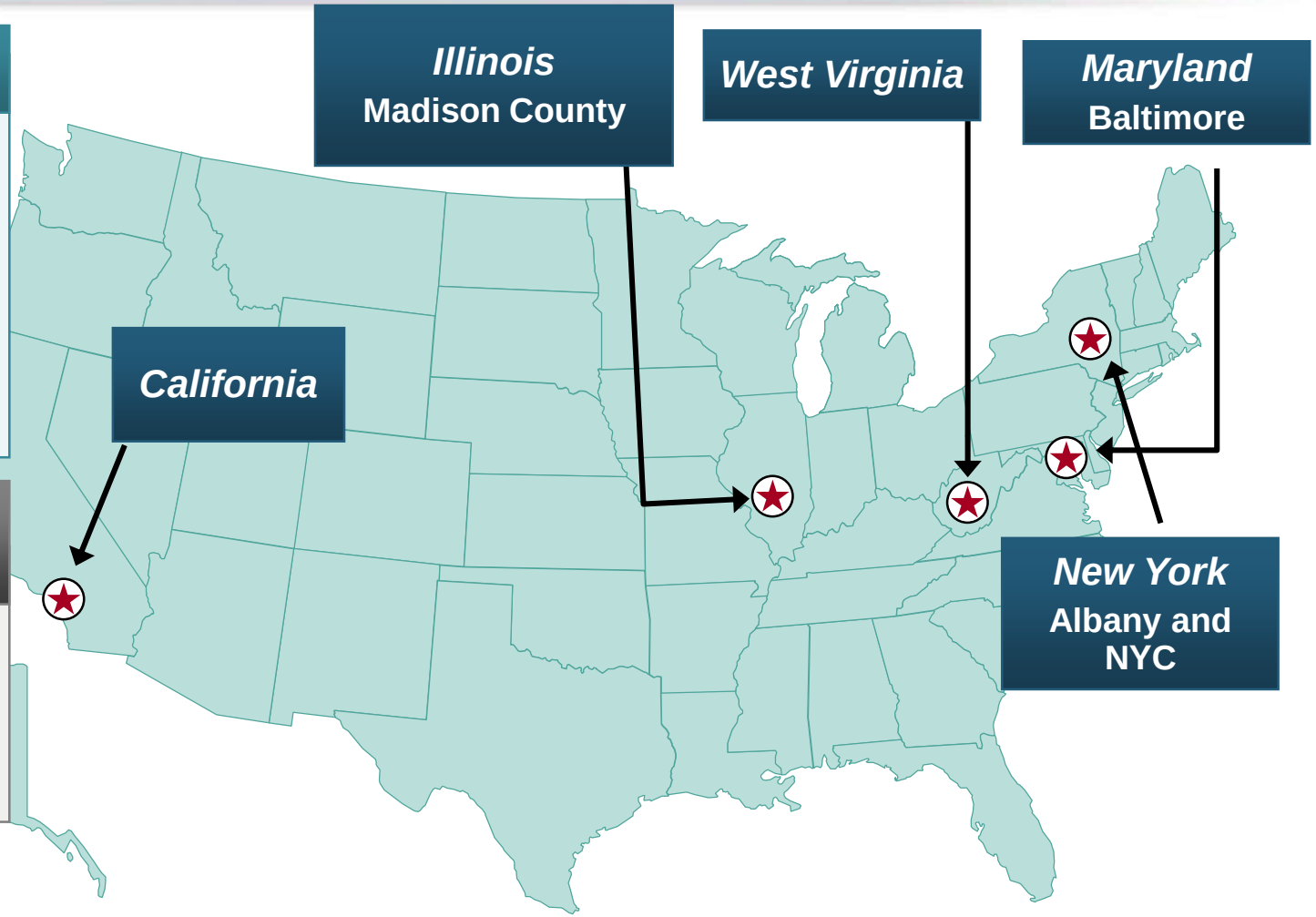
Watch List

- Philadelphia, Pennsylvania
- South Florida
- Cook County, Illinois
- New Jersey
- Nevada
- Louisiana

Dishonorable Mention

- MO Supreme Court
- WA Supreme Court



Source: American Tort Reform Association; Insurance Information Institute

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U.S. Insured Catastrophe Loss Update

2013 Was a Welcome Respite from the High Catastrophe Losses in Recent Years

U.S. Insured Catastrophe Losses

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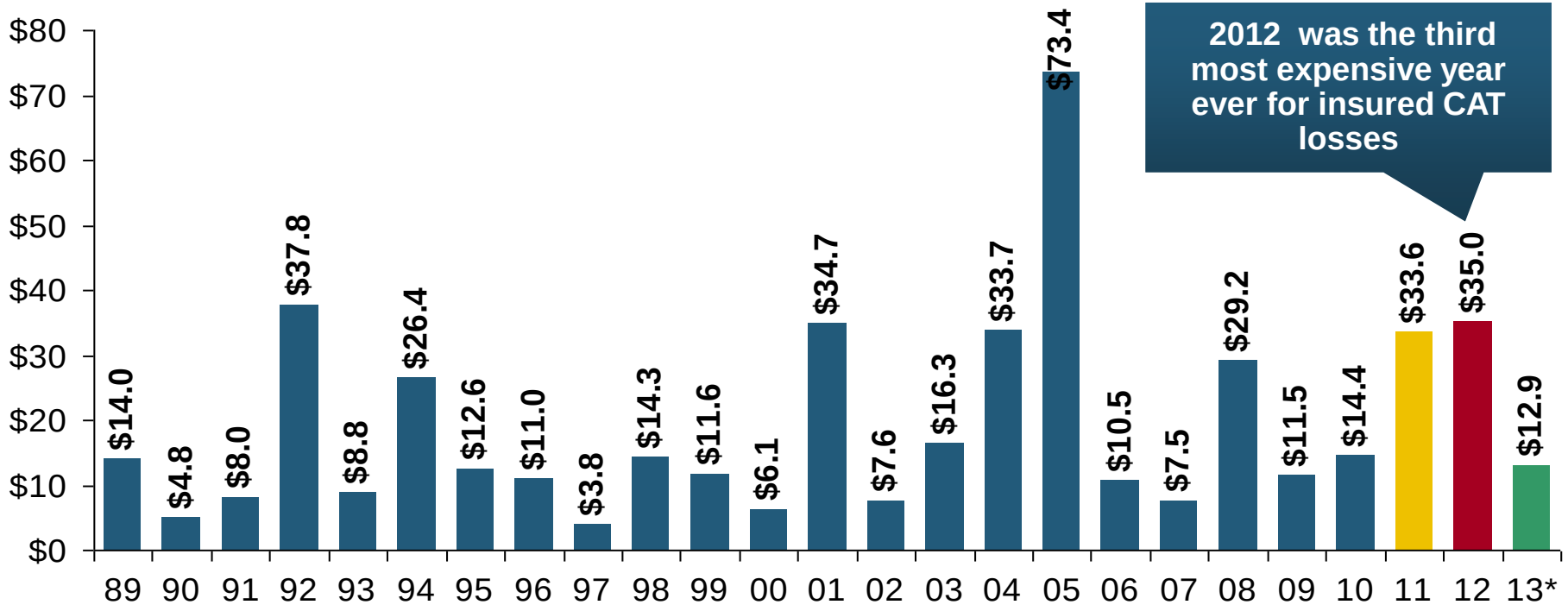
($ Billions, $ 2012)



2012 Was the 3rd Highest Year on Record for Insured Losses in U.S. History on an Inflation-Adj. Basis. 2011 Losses Were the 6th Highest. YTD 2013 Running Well Below 2011 and 2012 YTD Totals.

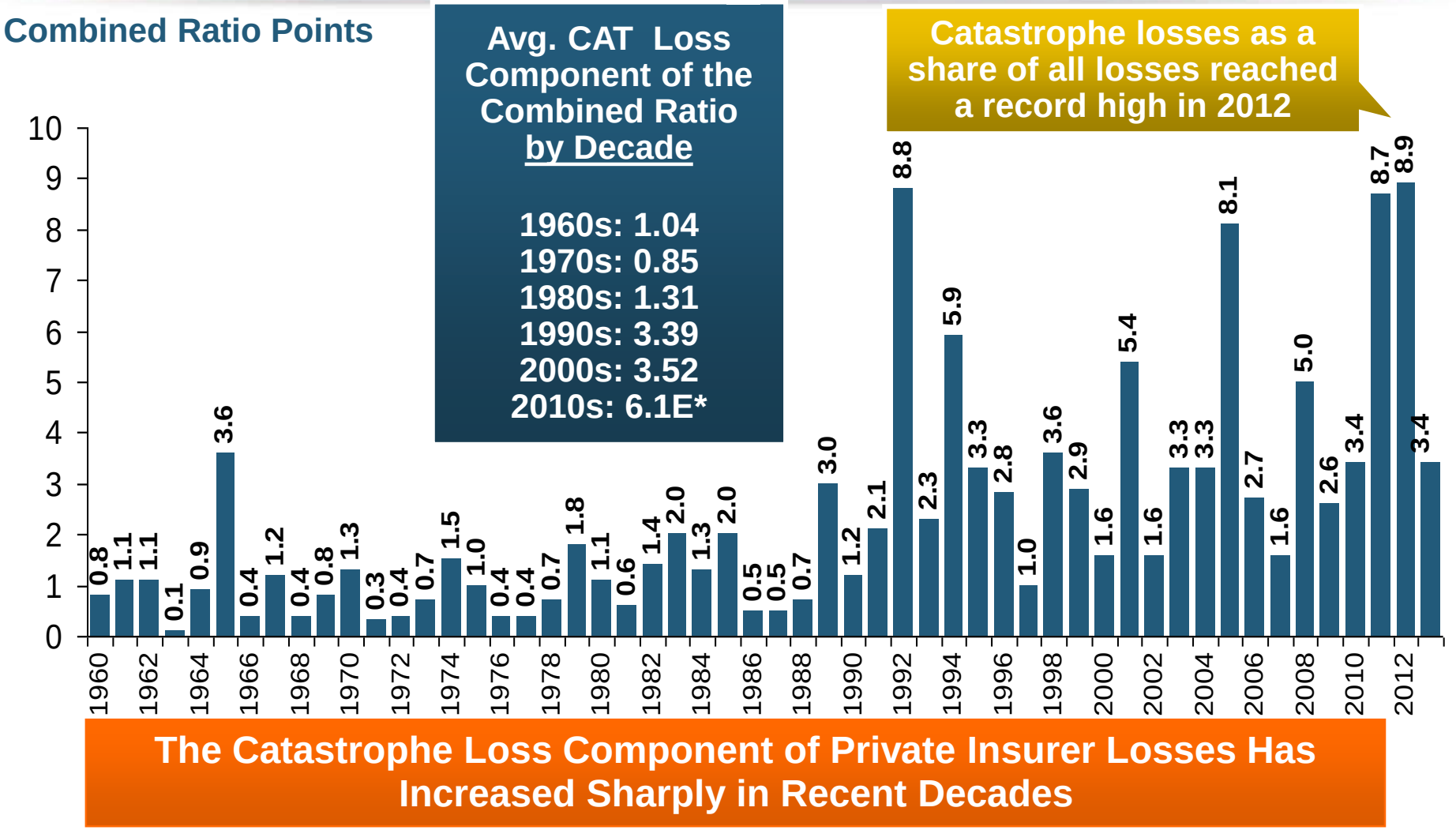
Record tornado losses caused 2011 CAT losses to surge

*Through 12/31/13.

Note: 2001 figure includes $20.3B for 9/11 losses reported through 12/31/01 ($25.9B 2011 dollars). Includes only business and personal property claims, business interruption and auto claims. Non-prop/BI losses = $12.2B ($15.6B in 2011 dollars.)

Sources: Property Claims Service/ISO; Insurance Information Institute.

Combined Ratio Points Associated with Catastrophe Losses: 1960 – 2013*



*2010s represent 2010-2013.

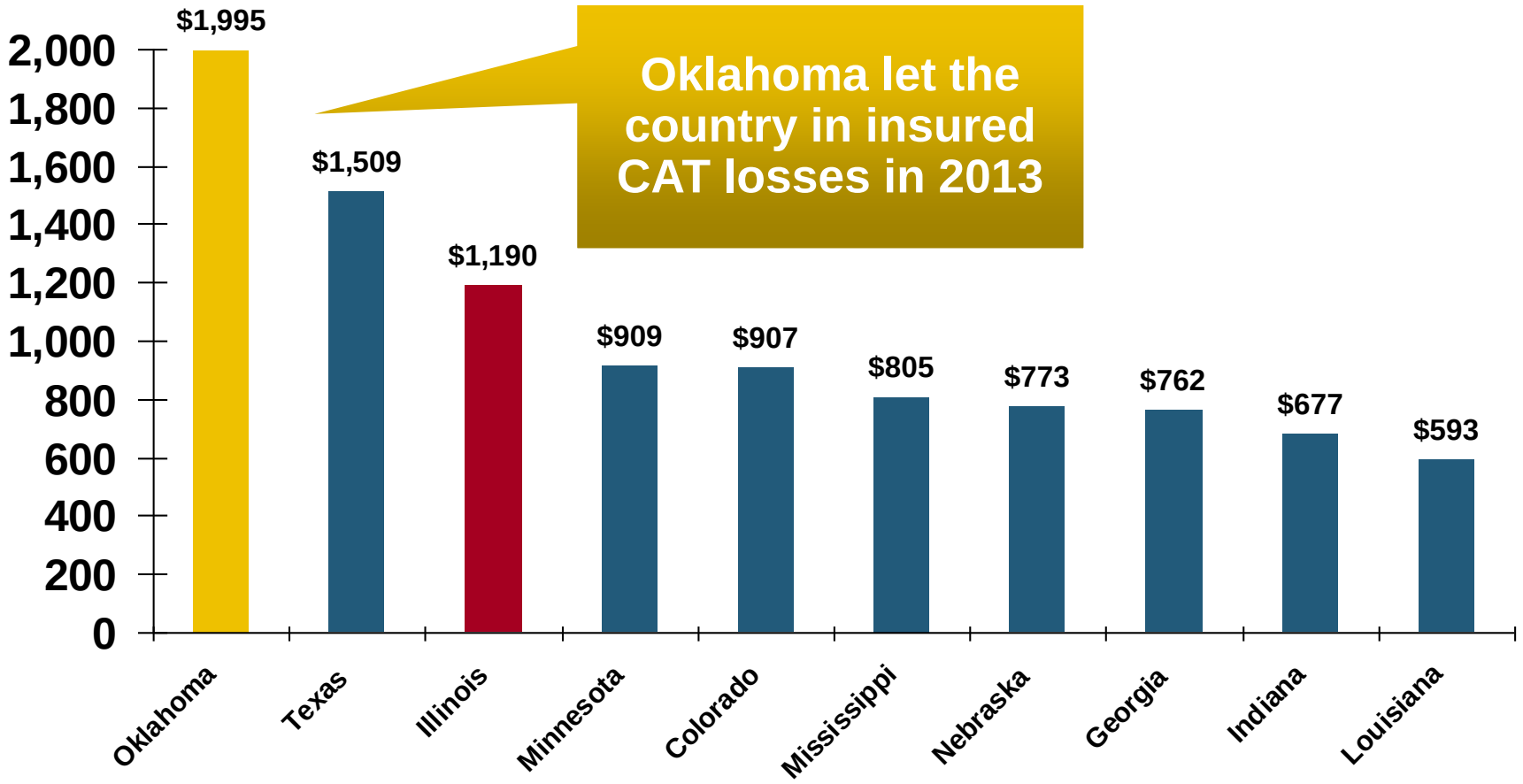
Notes: Private carrier losses only. Excludes loss adjustment expenses and reinsurance reinstatement premiums. Figures are adjusted for losses ultimately paid by foreign insurers and reinsurers.

Source: ISO (1960-2011); A.M. Best (2012E) Insurance Information Institute.

Top 10 States for Insured Catastrophe Losses, 2013

INSURANCE INFORMATION INSTITUTE

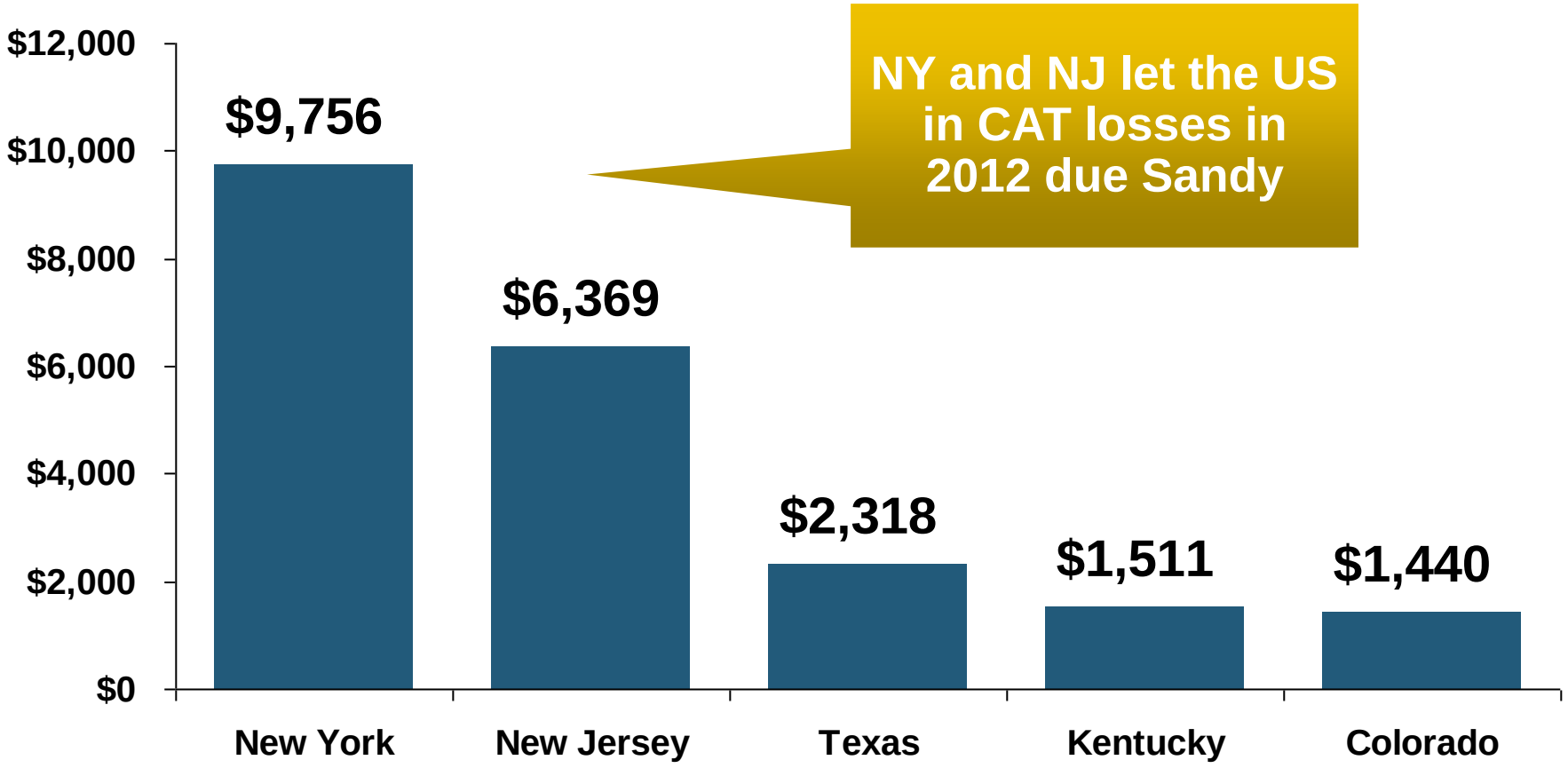
$ Millions



Source: The Property Claim Services (PCS) unit of ISO, a Verisk Analytics company.

Top 5 States by Insured Catastrophe Losses in 2012*

(2012, $ Billions)



*Includes catastrophe losses of at least $25 million.

Sources: PCS unit of ISO; Insurance Information Institute.

Top States by Inflation-Adjusted Insured Catastrophe Losses, 1983–2012

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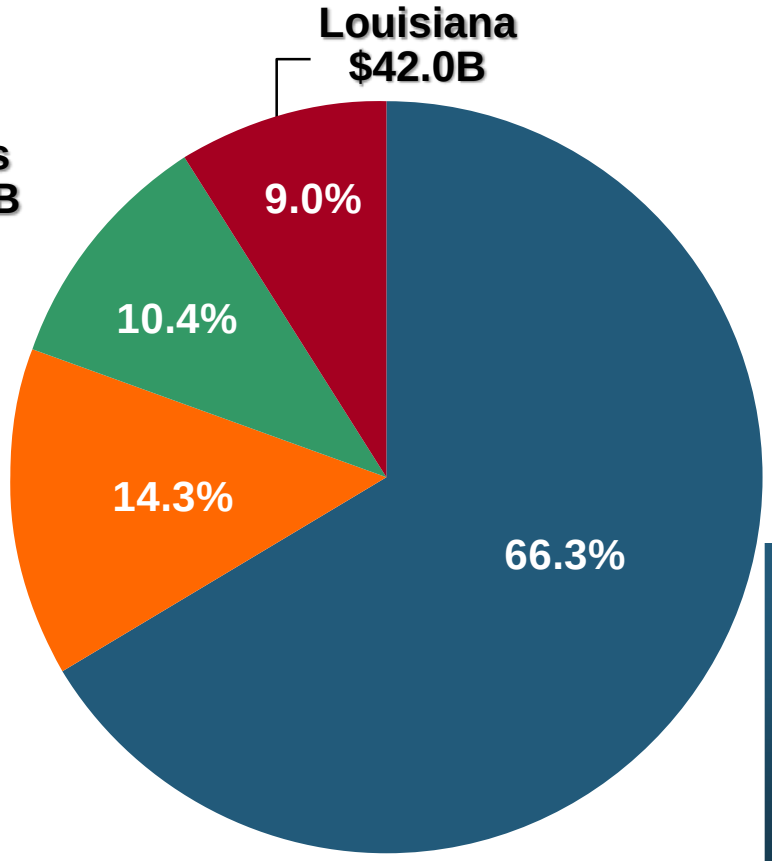
Over the Past 30 Years Florida Has Accounted for the Largest Share of Catastrophe Losses in the U.S., Followed by Texas and Louisiana

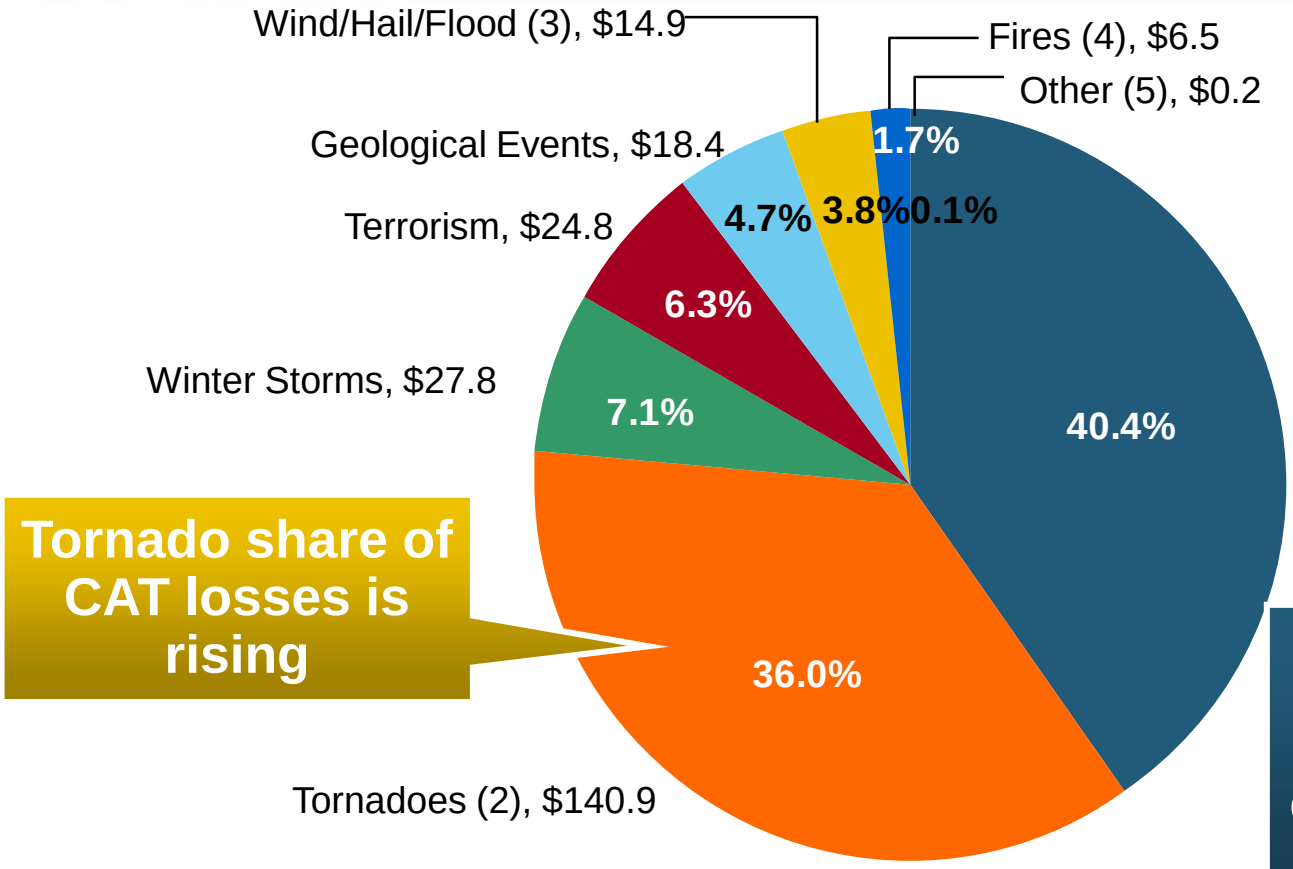
FL is the most costly state for CATs, with nearly $67B in insured losses over the past 30 years



Total: $467.5 Billion, an average of $16.6B per year or $1.3B per month

Source: PCS unit of ISO, Verisk Company.; Insurance Information Institute.

Inflation Adjusted U.S. Catastrophe Losses by Cause of Loss, 1993–2012[1]



Insured cat losses from 1993-2012 totaled $391.7B, an average of $19.6B per year or $1.6B per month

Tornado share of CAT losses is rising

Wind losses are by far cause the most catastrophe losses, even if hurricanes/TS are excluded.

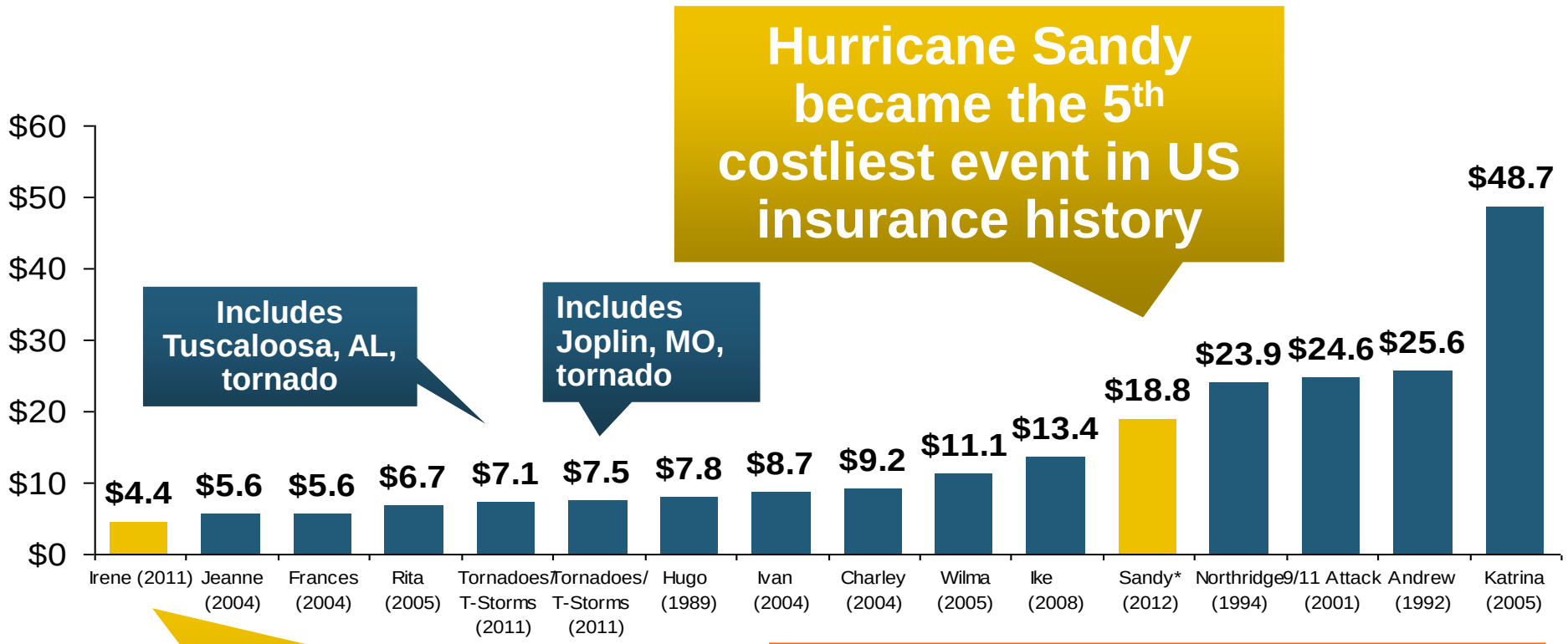
1. Catastrophes are defined as events causing direct insured losses to property of $25 million or more in 2012 dollars.
2. Excludes snow.
3. Does not include NFIP flood losses
4. Includes wildland fires
5. Includes civil disorders, water damage, utility disruptions and non-property losses such as those covered by workers compensation.

Source: ISO's Property Claim Services Unit.

Top 16 Most Costly Disasters in U.S. History

INSURANCE INFORMATION INSTITUTE

(Insured Losses, 2012 Dollars, $ Billions)



*PCS estimate as of 4/12/13.

Sources: PCS; Insurance Information Institute inflation adjustments to 2012 dollars using the CPI.

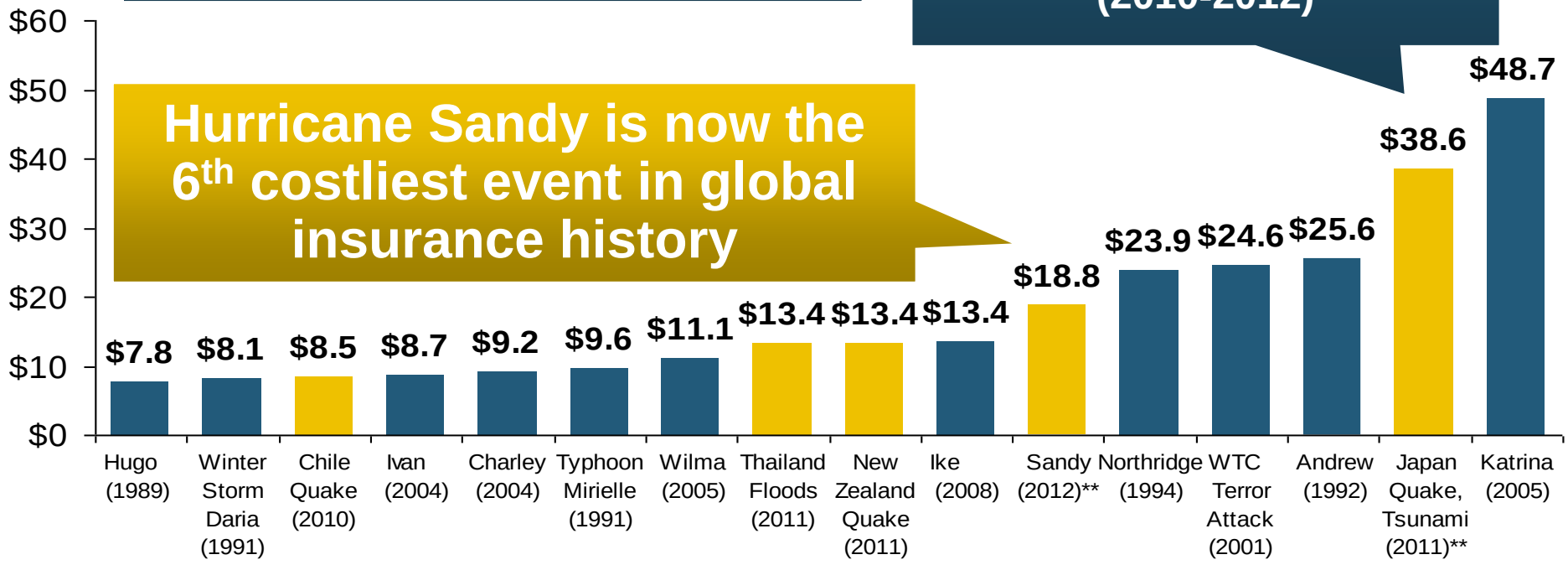
Top 16 Most Costly World Insurance Losses, 1970-2013*

(Insured Losses, 2012 Dollars, $ Billions)

2012 insured CAT Losses totaled $60B; Economic losses totaled $140B, according to Swiss Re

5 of the top 14 most expensive catastrophes in world history have occurred within the past 3 years (2010-2012)

Hurricane Sandy is now the 6th costliest event in global insurance history



*Figures do not include federally insured flood losses.

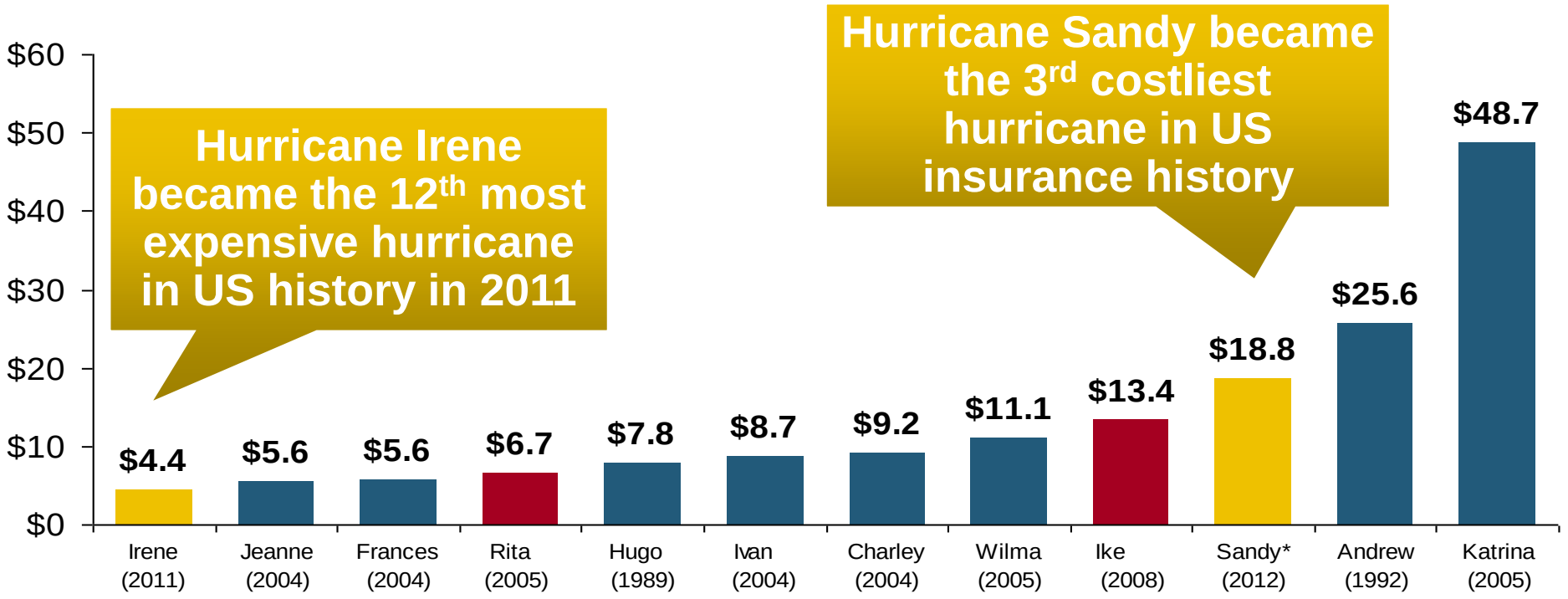
**Estimate based on PCS value of $18.75B as of 4/12/13.

Sources: Munich Re; Swiss Re; Insurance Information Institute research.

Top 12 Most Costly Hurricanes in U.S. History

(Insured Losses, 2012 Dollars, $ Billions)

10 of the 12 most costly hurricanes in insurance history occurred over the past 9 years (2004—2012)



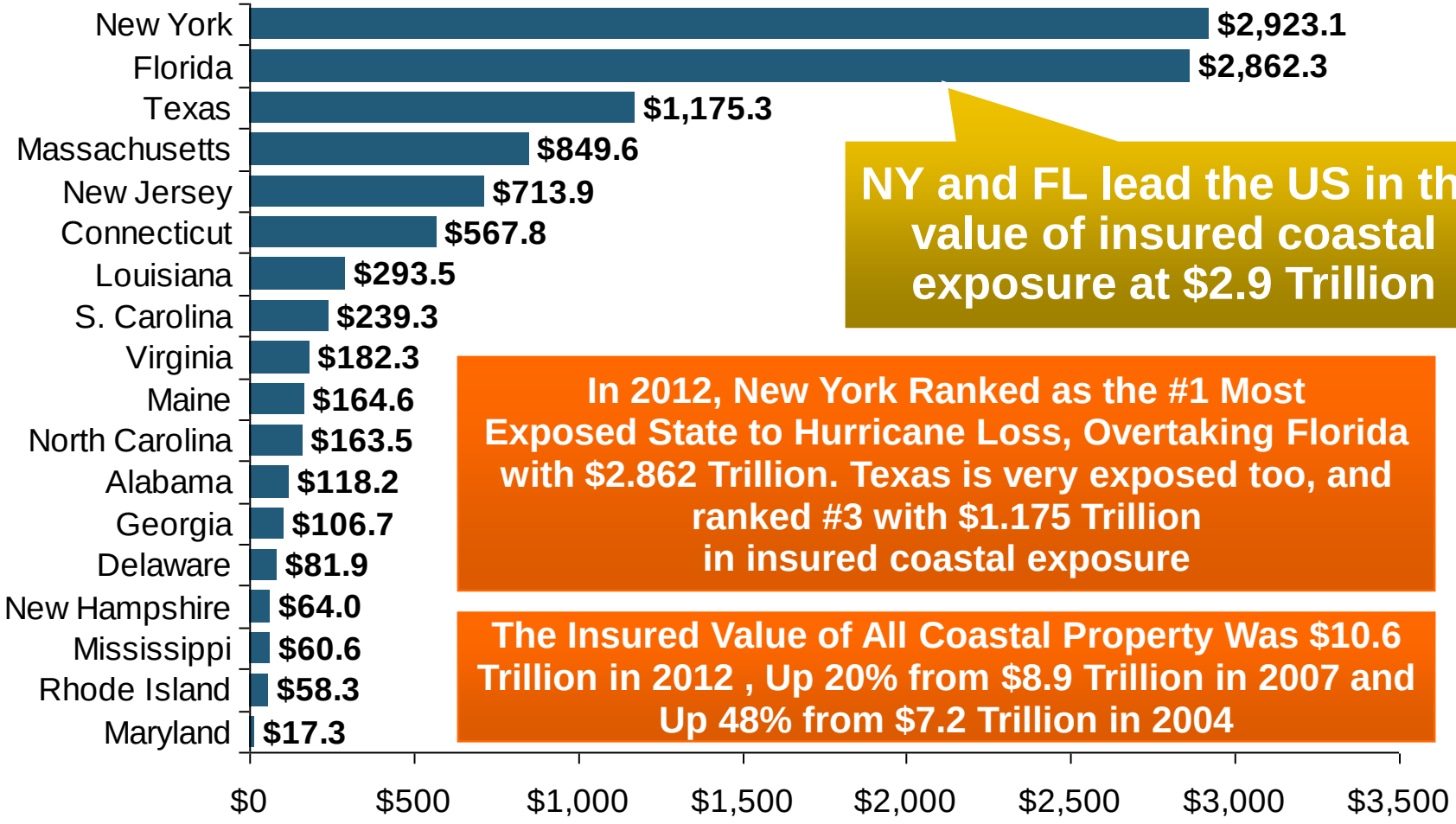
*PCS estimate as of 4/12/13.

Sources: PCS; Insurance Information Institute inflation adjustments to 2012 dollars using the CPI.

Total Value of Insured Coastal Exposure in 2012

INSURANCE INFORMATION INSTITUTE

(2012, $ Billions)



NY and FL lead the US in the value of insured coastal exposure at $2.9 Trillion

In 2012, New York Ranked as the #1 Most Exposed State to Hurricane Loss, Overtaking Florida with $2.862 Trillion. Texas is very exposed too, and ranked #3 with $1.175 Trillion in insured coastal exposure

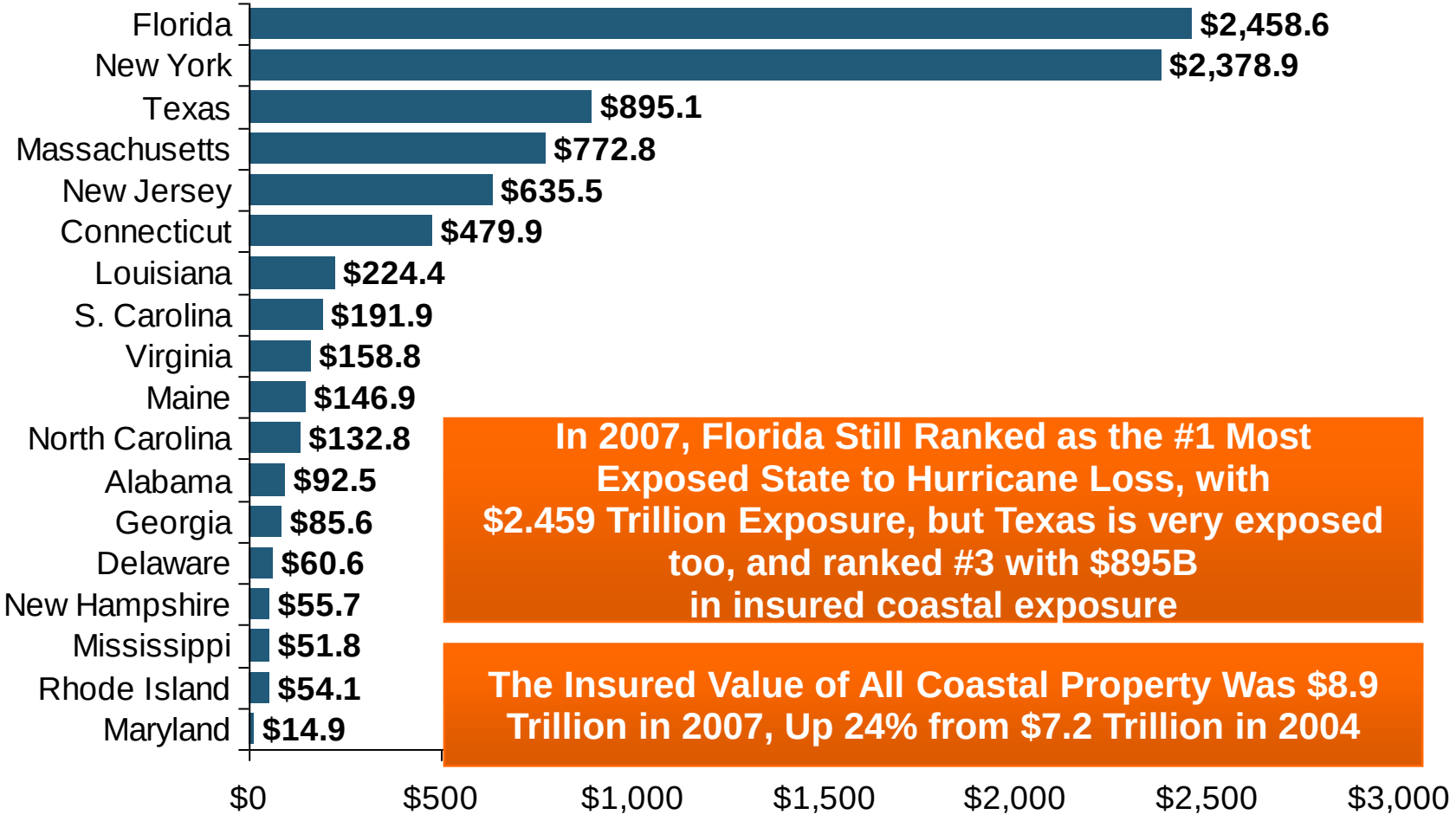
The Insured Value of All Coastal Property Was $10.6 Trillion in 2012 , Up 20% from $8.9 Trillion in 2007 and Up 48% from $7.2 Trillion in 2004

Source: AIR Worldwide

Total Value of Insured Coastal Exposure in 2007

INSURANCE INFORMATION INSTITUTE

(2007, $ Billions)

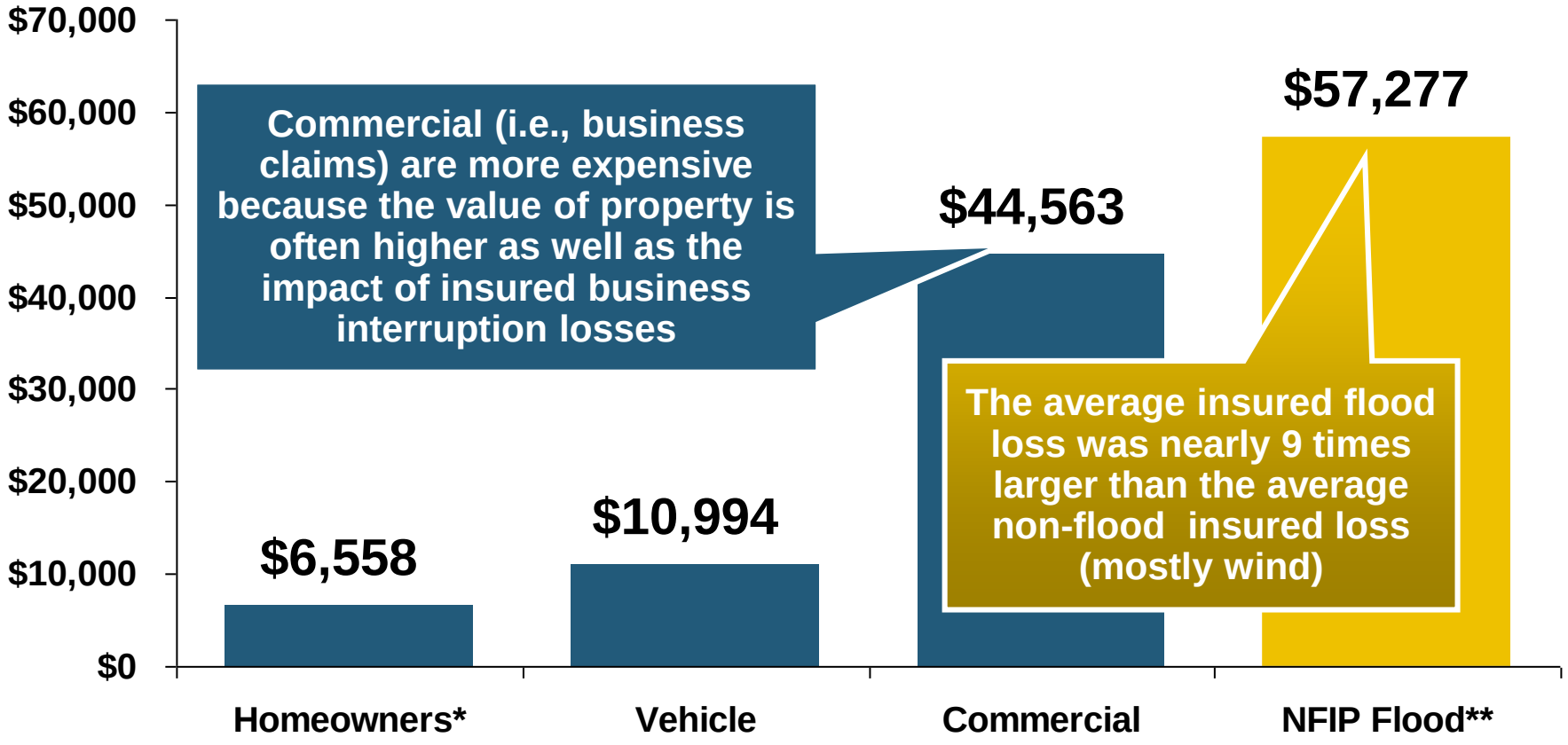


In 2007, Florida Still Ranked as the #1 Most Exposed State to Hurricane Loss, with $2.459 Trillion Exposure, but Texas is very exposed too, and ranked #3 with $895B in insured coastal exposure

The Insured Value of All Coastal Property Was $8.9 Trillion in 2007, Up 24% from $7.2 Trillion in 2004

Source: AIR Worldwide

Hurricane Sandy: Average Claim Payment by Type of Claim

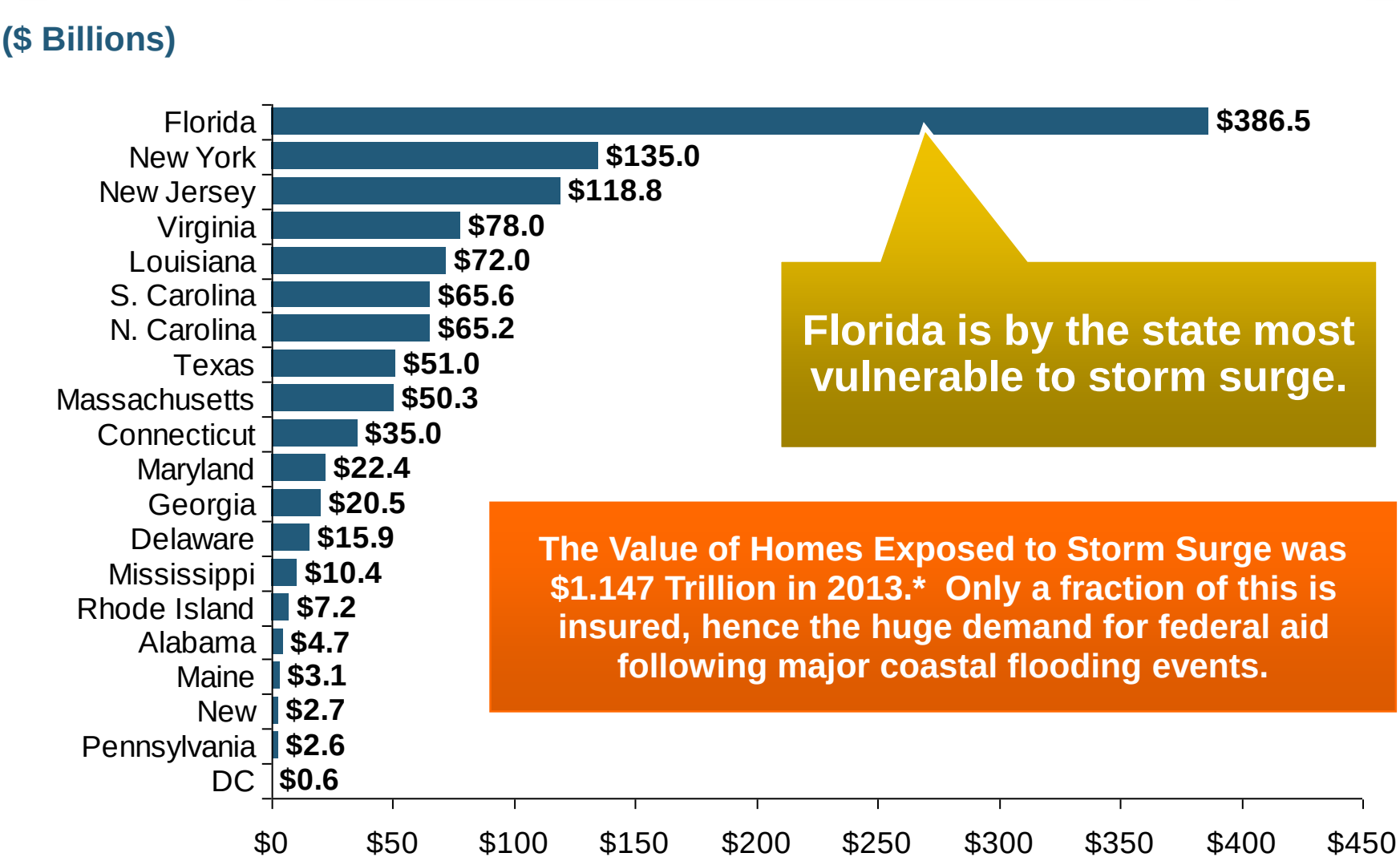


Post-Sandy, the I.I.I. worked very hard to make help media, consumers and regulators understand the distinction between a flood claim and a standard homeowners claim. *NFIP is $24B in debt.*

*Includes rental and condo policies (excludes NFIP flood). **As of Oct. 31, 2013.

Sources: Catastrophe loss data is for Catastrophe Serial No. 90 (Oct. 28 – 31, 2012) from PCS as of March 2013; Insurance Information Institute.

Total Potential Home Value Exposure to Storm Surge Risk in 2013*



*Insured and uninsured property. Based on estimated property values as of April 2013.

Source: *Storm Surge Report 2013,* CoreLogic.

Top 10 Winter Storm and Winter Damage Events in the US and Canada, 1980-2013*

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Ranked by Insured Loss, in Millions of $ 2013*

Period	Area	Economic Loss (in inflation-adjusted 2013 $US mill)	Insured Loss (in inflation-adjusted 2013 $US mill)	Fatalities
Mar. 11-14, 1993	CAN, USA	8,061	**3,224**	270
Dec. 17-30,1983	USA	2,339	**2,058**	500
Apr. 13-17, 2007	CAN, USA	2,247	**1,775**	23
Dec. 10-13, 1992	USA	4,981	**1,660**	19
Jan. 5-12, 1998	CAN, USA	4,145	**1,644**	45
Feb. 10-12, 1994	USA	4,716	**1,258**	9
Jan. 17-20, 1994	USA	1,572	**1,258**	70
Apr. 7-11, 2013	USA	1,600	**1,200**	N/A
Jan. 1-4, 1999	CAN, USA	1,398	**1,084**	25
Jan. 31-Feb. 2, 2011	USA	1,346	**1,010**	36

*Top 10 events in original insured loss dollars were adjusted to and ranked by the Insurance Information Institute to 2013 inflation-adjusted values.
Sources: Munich Re NatCatSERVICE; Insurance Information Institute.

Winter Storm and Winter Damage Events in the US and Canada, 1980-2013 (2013 US$)

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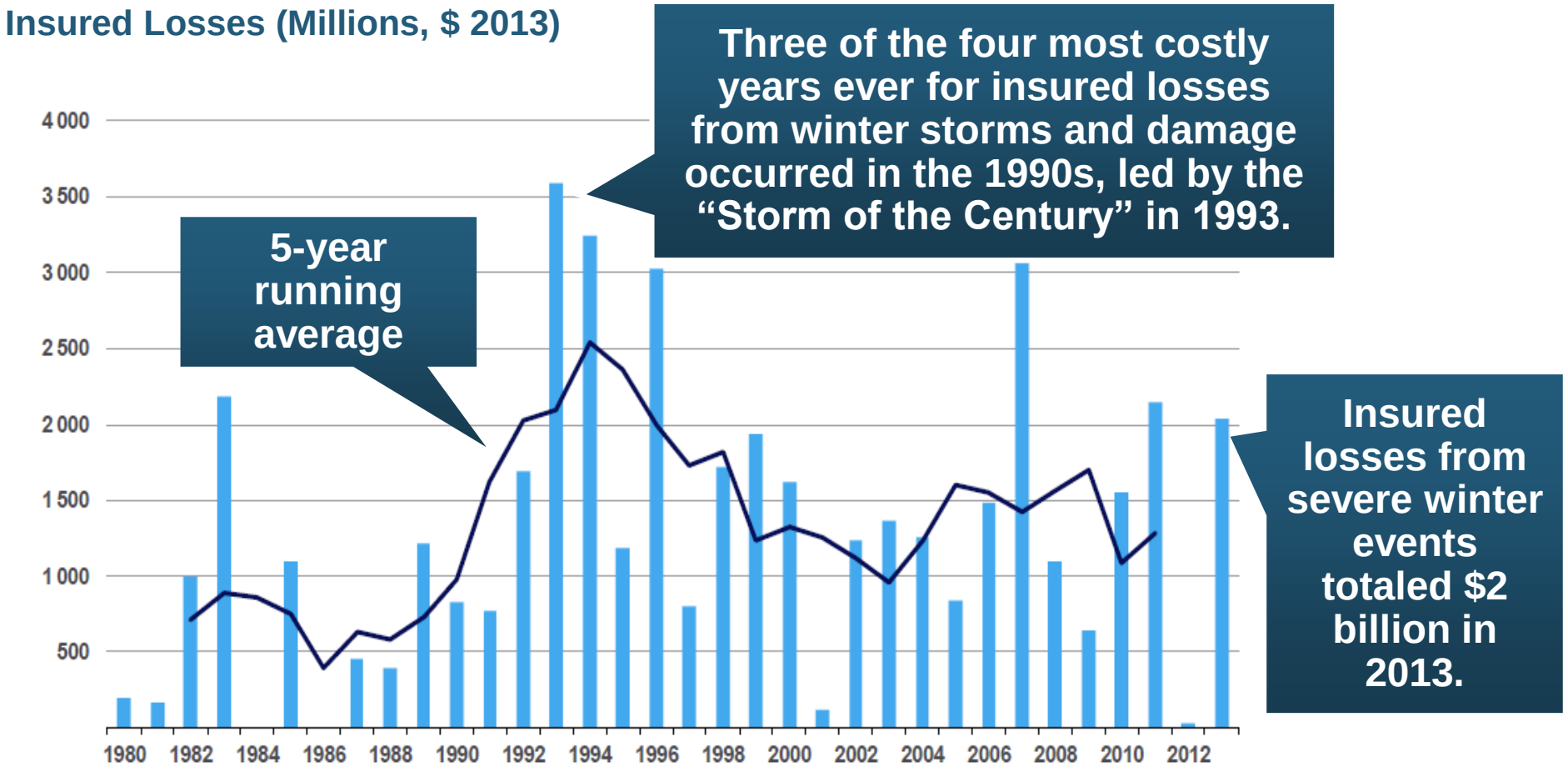

Insured winter storm and damage losses in Jan. 2014 already totaled $1.5 billion. Continued severe weather since then makes it likely that 2014 will become one of the top 5 costliest winters since 1980.

Sources: Munich Re NatCatSERVICE; Insurance Information Institute.

Natural Disaster Losses in the United States, by Type, 2013

As of December 31, 2013	Number of Events	Fatalities	Estimated Overall Losses (US $m)	Estimated Insured Losses (US $m)
Severe Thunderstorm	***69***	***110***	***16,341***	***10,274***
Winter Storm	11	43	2,935	1,895
Flood	19	23	1,929	240
Earthquake & Geophysical	6	1	Minor	Minor
Tropical Cyclone	1	1	Minor	Minor
Wildfire, Heat, & Drought	22	29	620	385
Totals	**128**	**207**	**21,825**	**12,794**

Source: Munich Re NatCat*SERVICE*

Significant Natural Catastrophes, 2013

(Events with $1 billion economic loss and/or 50 fatalities)

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Date	Event	Estimated Economic Losses (US $m)	Estimated Insured Losses (US $m)
February 24 – 25	Winter Storm	1,300	690
March 18 – 19	Thunderstorms	2,200	1,600
April 7 – 11	Winter Storm	1,600	1,200
April 16 – 18	Thunderstorms	1,100	560
May 18 – 20	Thunderstorms	3,100	1,800
May 28 – 31	Thunderstorms	2,800	1,400
August 6 – 7	Thunderstorms	1,300	740
September 9 – 16	Flooding	1,500	160
November 17 - 18	Thunderstorms	1,300	931

Source: Munich Re NatCat*SERVICE*

U.S. Thunderstorm Insured Loss Trends, 1980 – 2013

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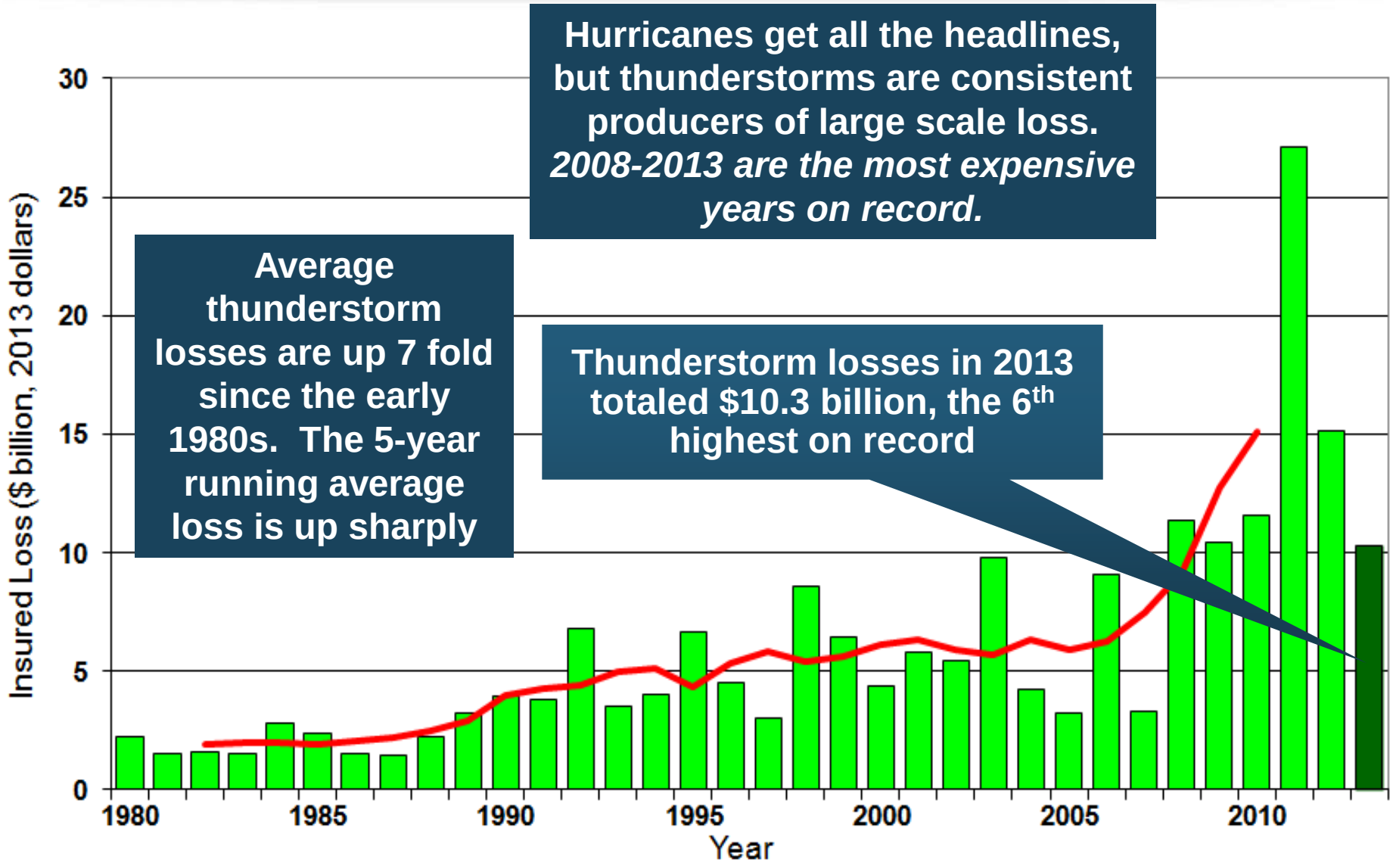
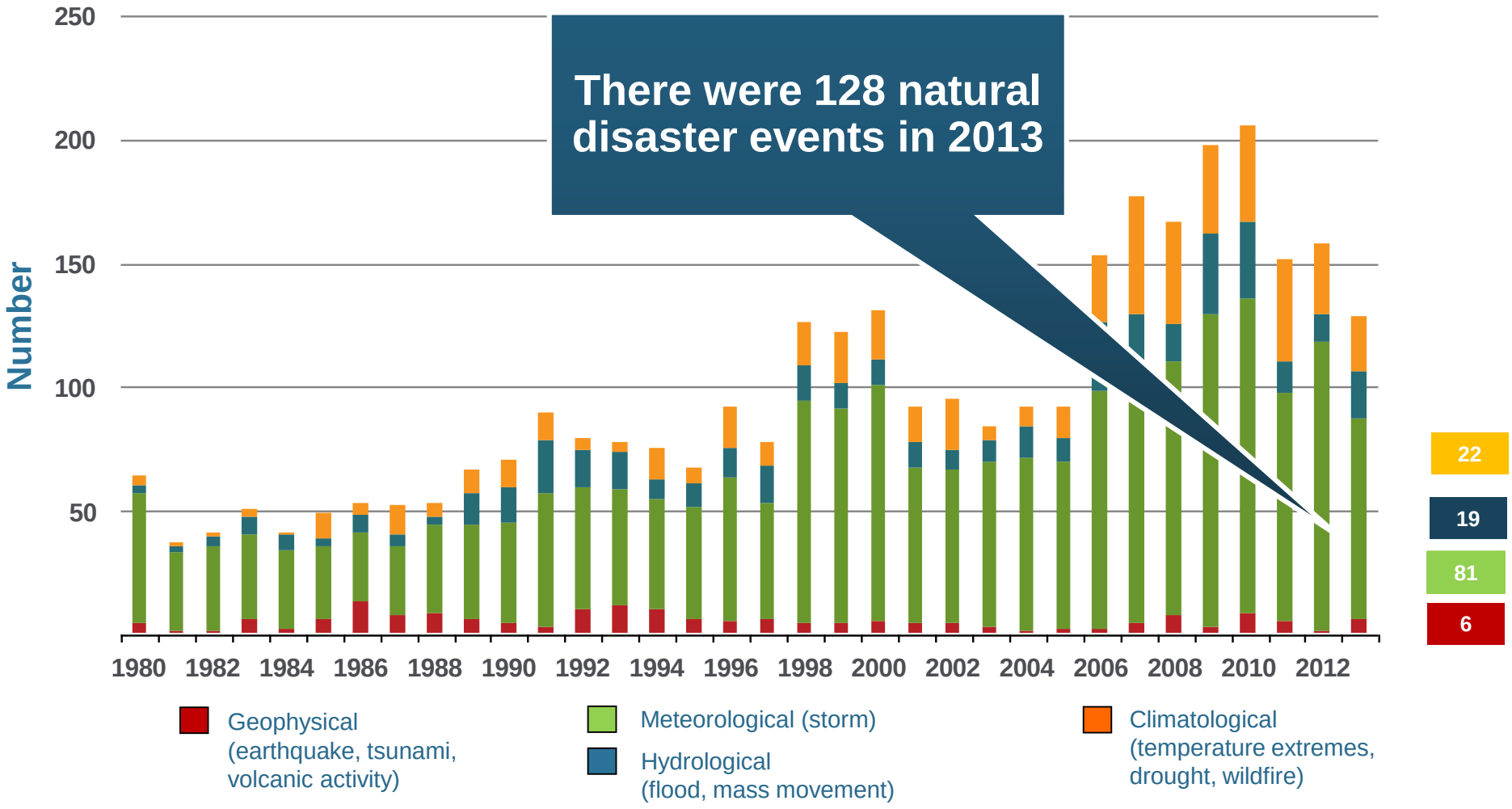


Source: Property Claims Service, and MR NatCat*SERVICE*

Natural Disasters in the United States, 1980 – 2013

Number of Events (Annual Totals 1980 – 2013)



Source: MR NatCat*SERVICE*

Losses Due to Natural Disasters in the US, 1980–2013

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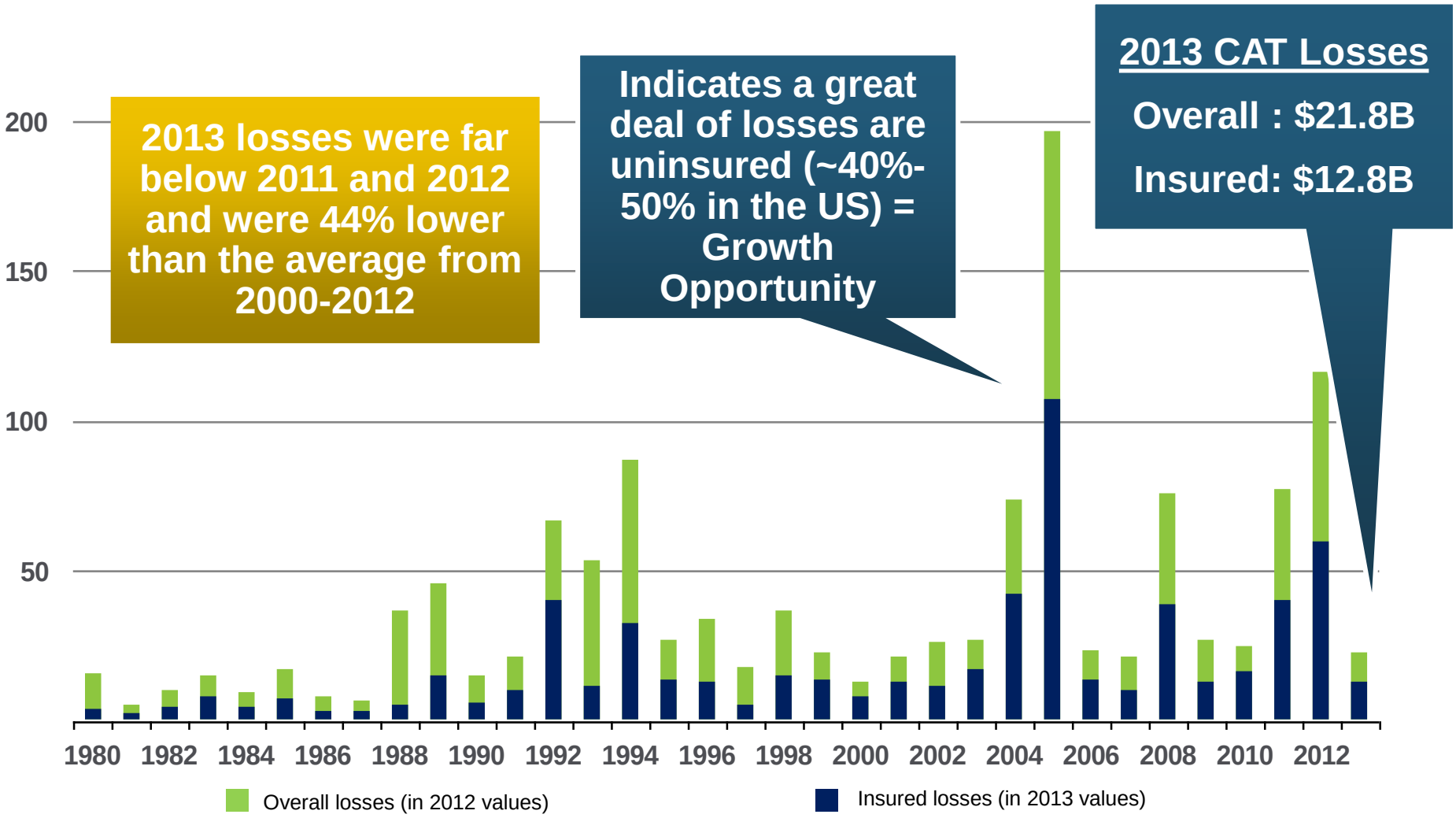
(2013 Dollars, $ Billions) (Overall and Insured Losses)



Source: MR NatCat*SERVICE*

Insured US Tropical Cyclone Losses, 1980 - 2013

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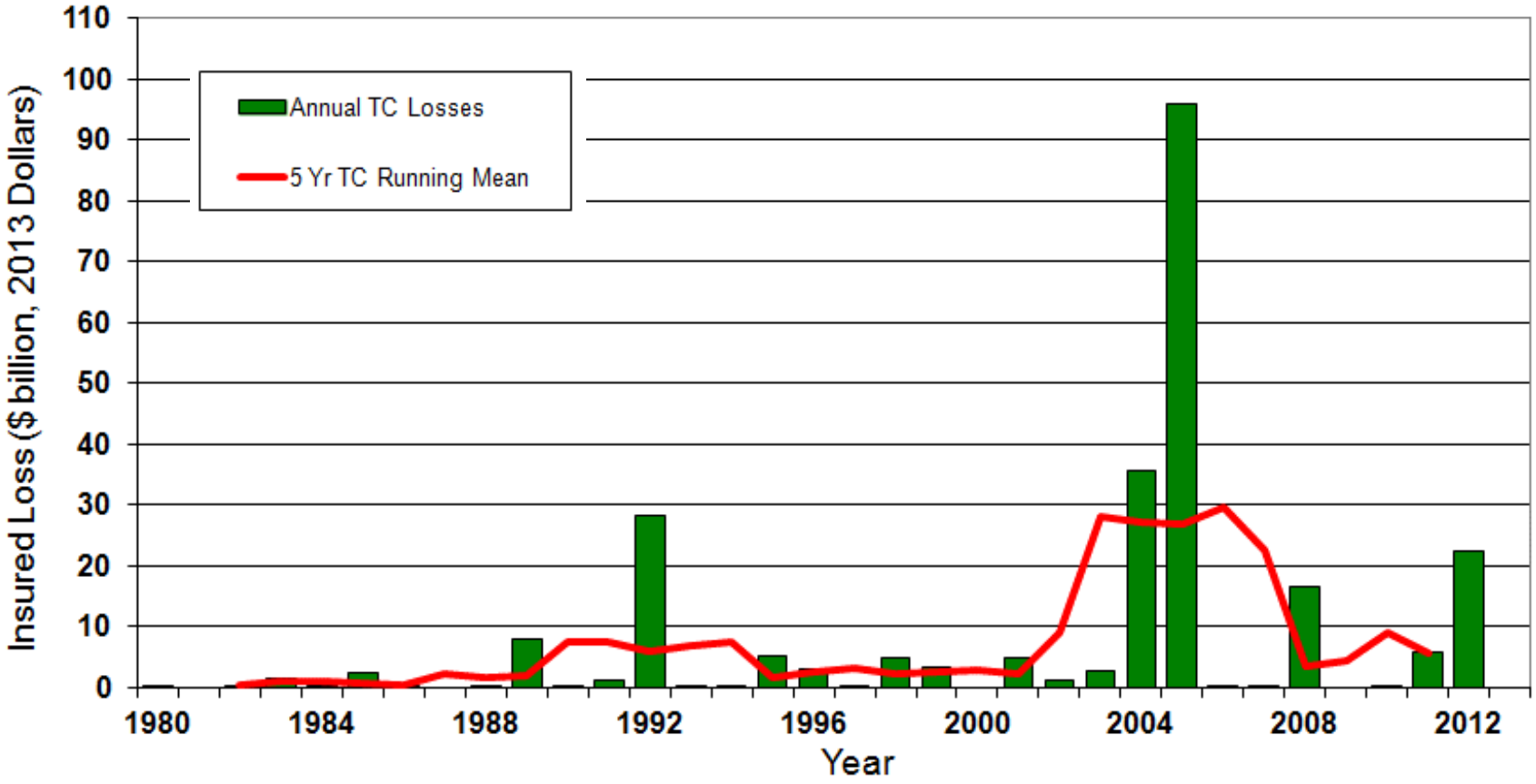
The current 5-year average (2008 - 2013) insured tropical cyclone loss is $5.6 billion per year.



Sources: Property Claims Service, Munich Re NatCat*SERVICE,* NFIP

Natural Loss Events: Full Year 2013

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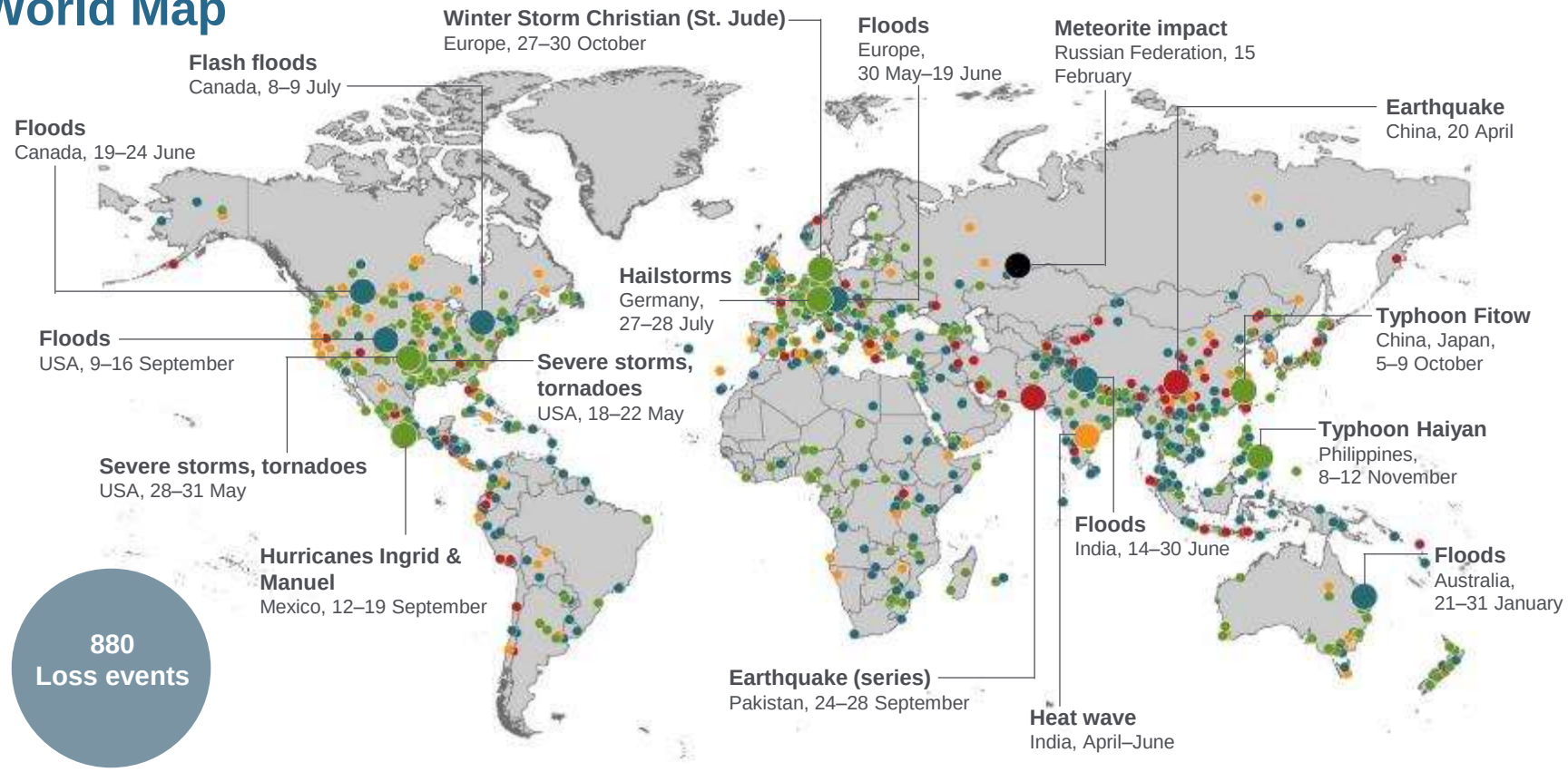
World Map



- Natural catastrophes
- Selection of significant Natural catastrophes
- **Geophysical events** (earthquake, tsunami, volcanic activity)
- **Meteorological events** (storm)
- **Hydrological events** (flood, mass movement)
- **Climatological events** (extreme temperature, drought, wildfire)
- **Extraterrestrial events** (Meteorite impact)

Source: Munich Re Geo Risks Research, NatCat*SERVICE* – as of January 2014.

Natural Disasters Worldwide, 1980 – 2013 (Number of Events)

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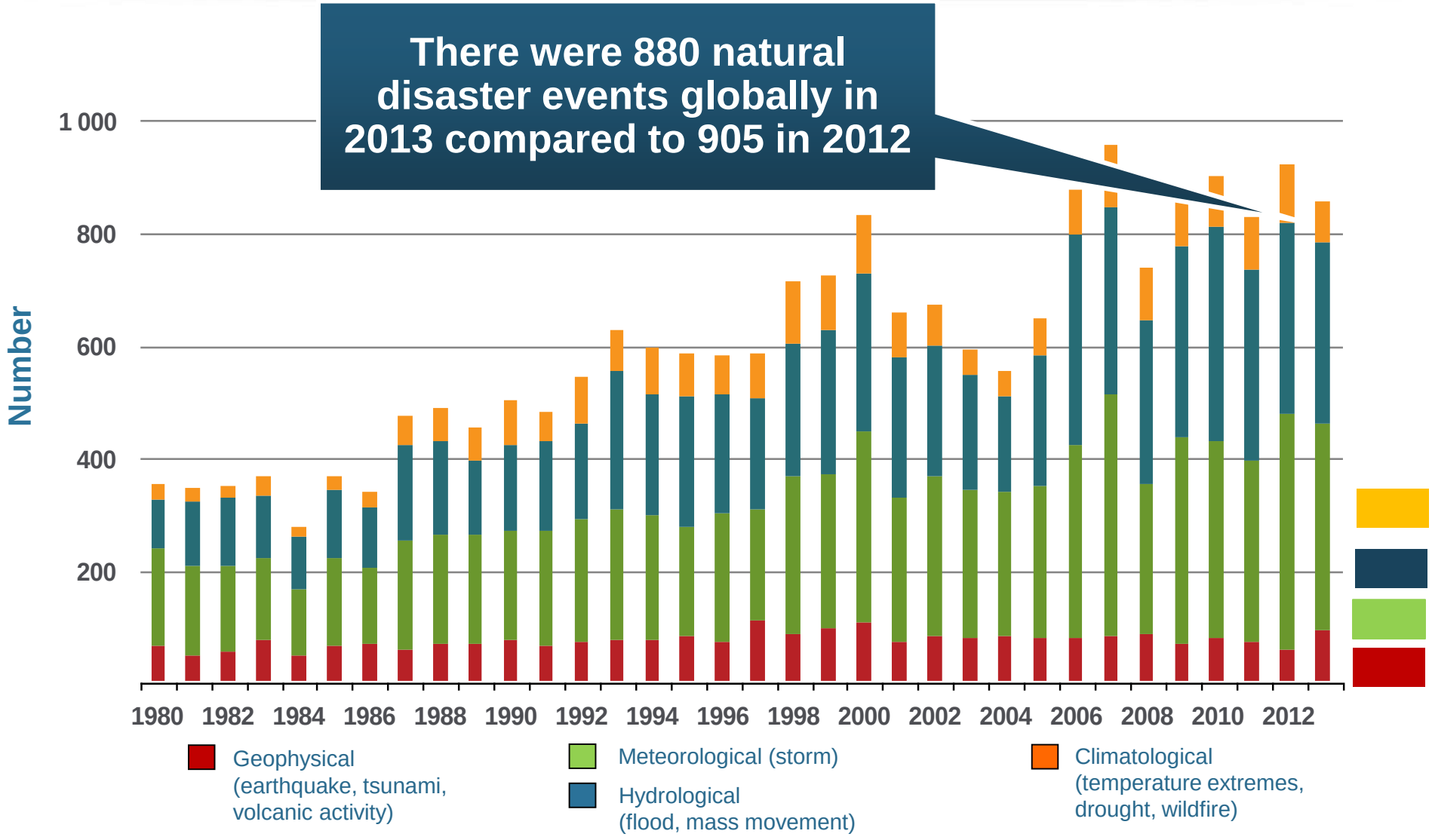

Source: MR NatCat*SERVICE*

Losses Due to Natural Disasters Worldwide, 1980–2013 (Overall & Insured Losses)

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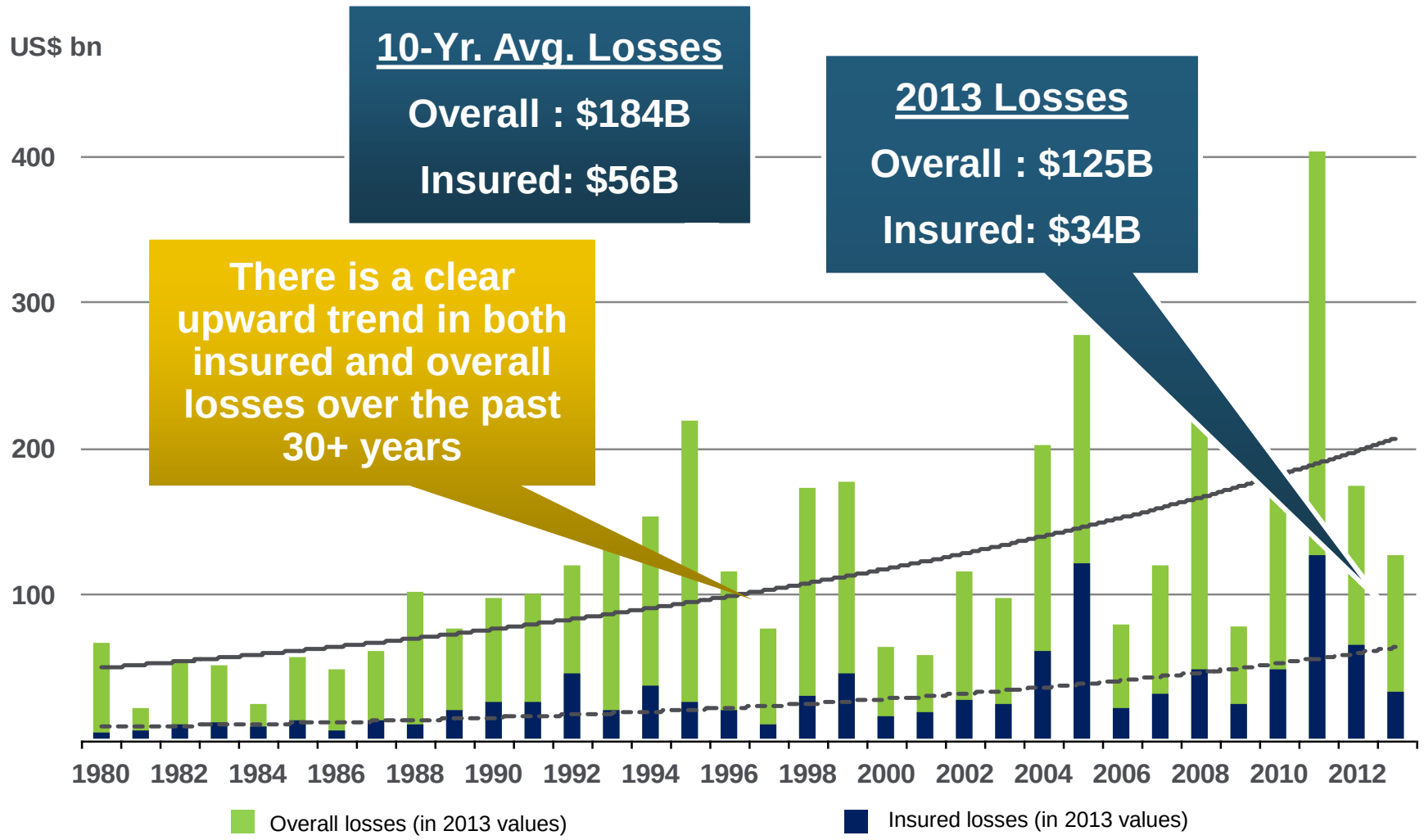
(Overall and Insured Losses)

(2013 Dollars, $ Billions)



Source: MR NatCat*SERVICE*

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Terrorism Update

TRIA's Success

Consequences of Expiration

Download III's Terrorism Insurance Report at:
http://www.iii.org/white_papers/terrorism-risk-a-constant-threat-2014.html

Loss Distribution by Type of Insurance from Sept. 11 Terrorist Attack ($ 2013)

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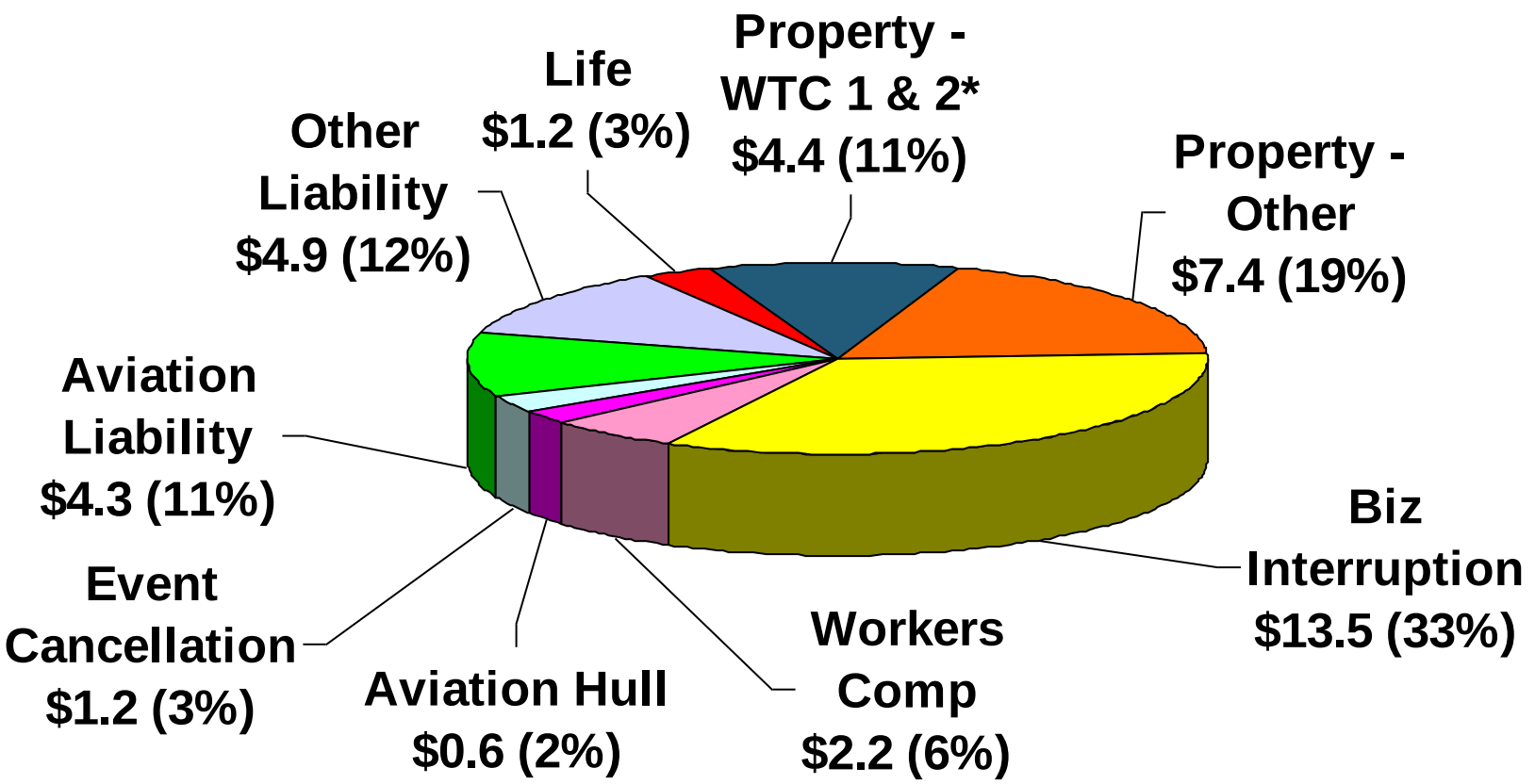
($ Billions)



Total Insured Losses Estimate: $42.9B**

*Loss total does not include March 2010 New York City settlement of up to $657.5 million to compensate approximately 10,000 Ground Zero workers or any subsequent settlements.

**$32.5 billion in 2001 dollars.

Source: Insurance Information Institute.

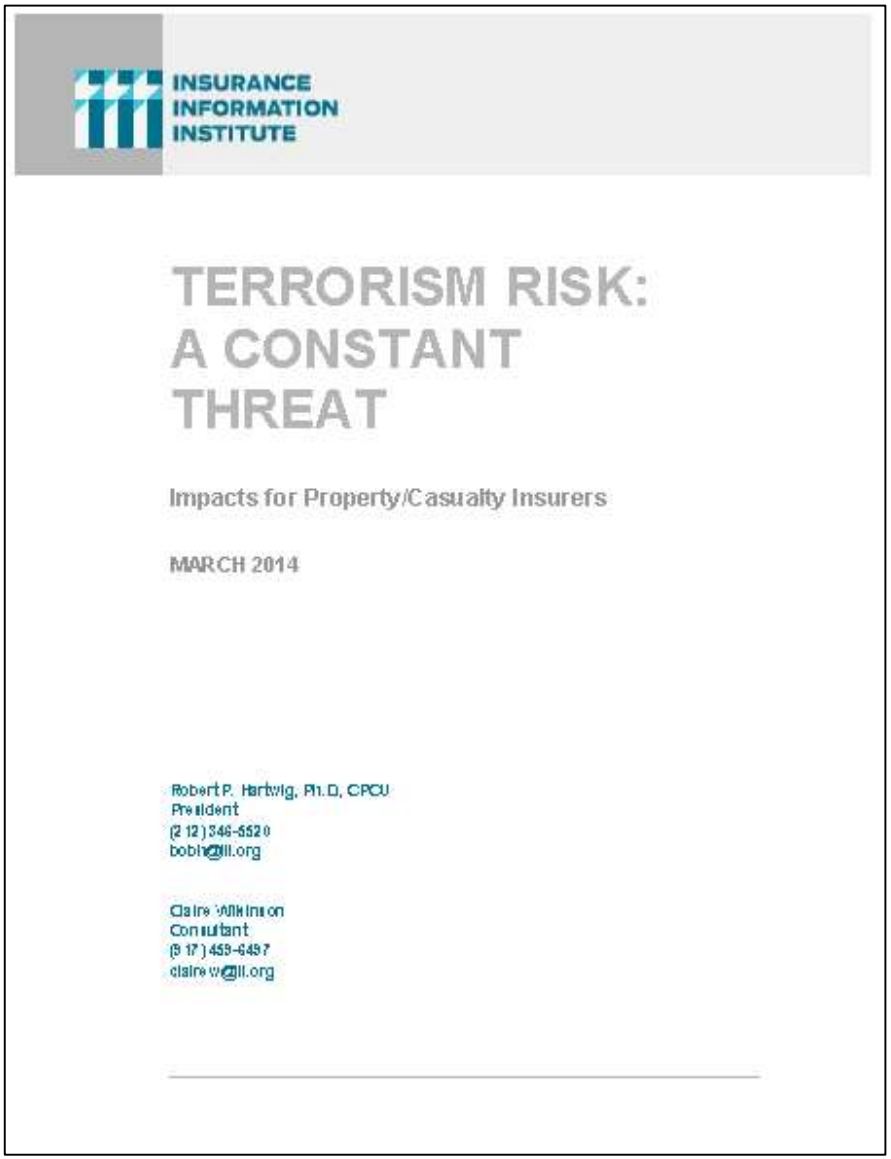
Terrorism Risk Insurance Program

- Testified before House Financial Services Nov. 2013
- Testified before Senate Banking Cmte. in Sept. 2013
- Provided testimony at NYC hearing in June 2013
- Provided Capitol Hill Joint House/Senate Staff Briefing in April 2014
- I.I.I. Published Several Updates to its Study on Terrorism Risk and Insurance

Senate Banking Committee, 9/25/13

House Financial Services Subcommittee, 11/13/13

I.I.I. White Paper (March 2014): *Terrorism Risk: A Constant Threat*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TERRORISM RISK: A CONSTANT THREAT

Impacts for Property/Casualty Insurers

MARCH 2014

Robert P. Hartwig, Ph.D., CPCU
President
(212) 346-5520
bobh@iii.org

Claire Wilkinson
Consultant
(917) 453-6497
clairew@iii.org

- Detailed history of TRIA
- How TRIA works
- Assessing the threat of terrorism
- Terrorism market conditions
- Global perspective
- Download at *http://www.iii.org/white_papers/terrorism-risk-a-constant-threat-2014.html*

Terrorism Risk in 2013: Greatest Business Opportunities Are Often in Risky Nations

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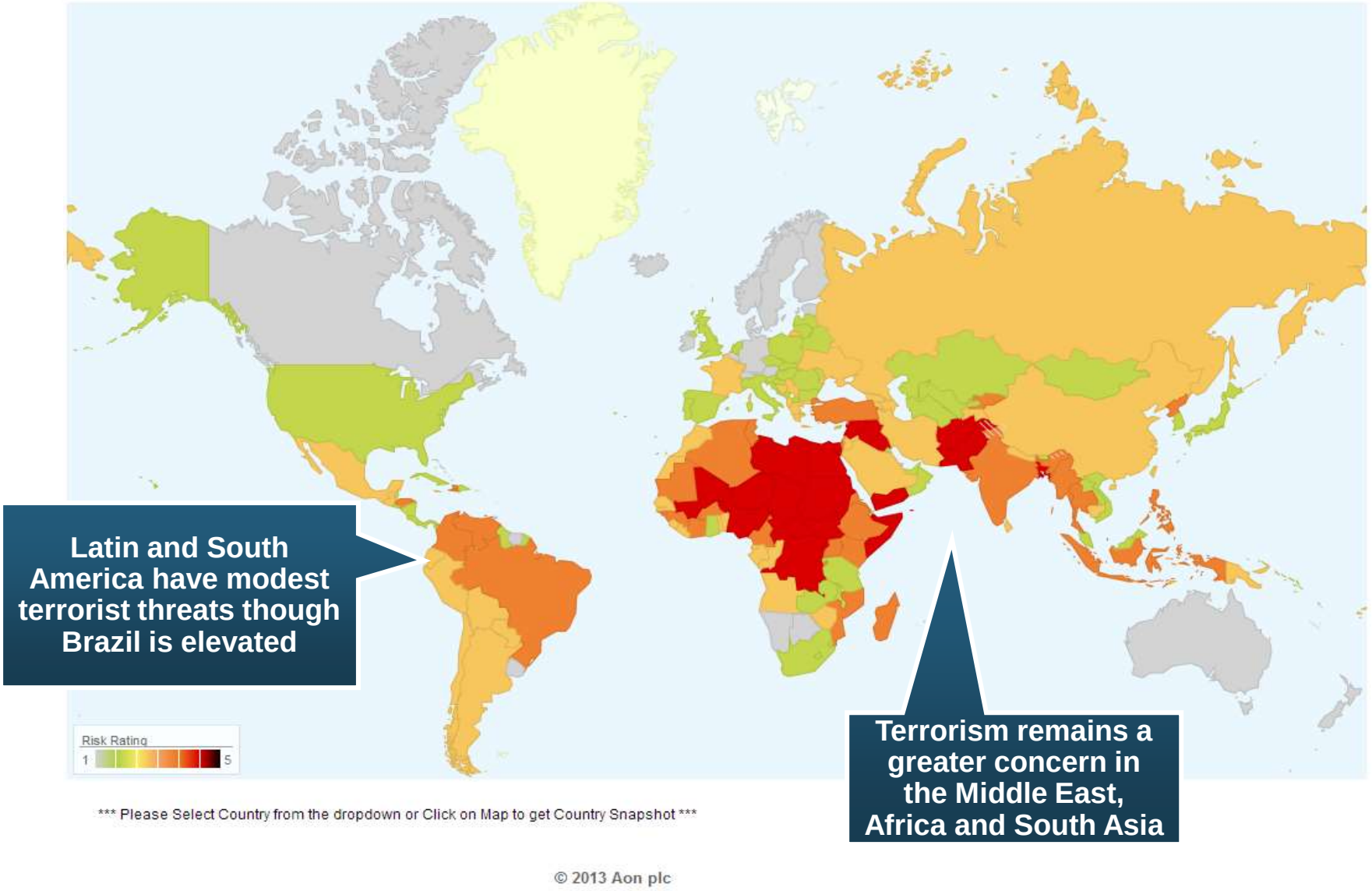
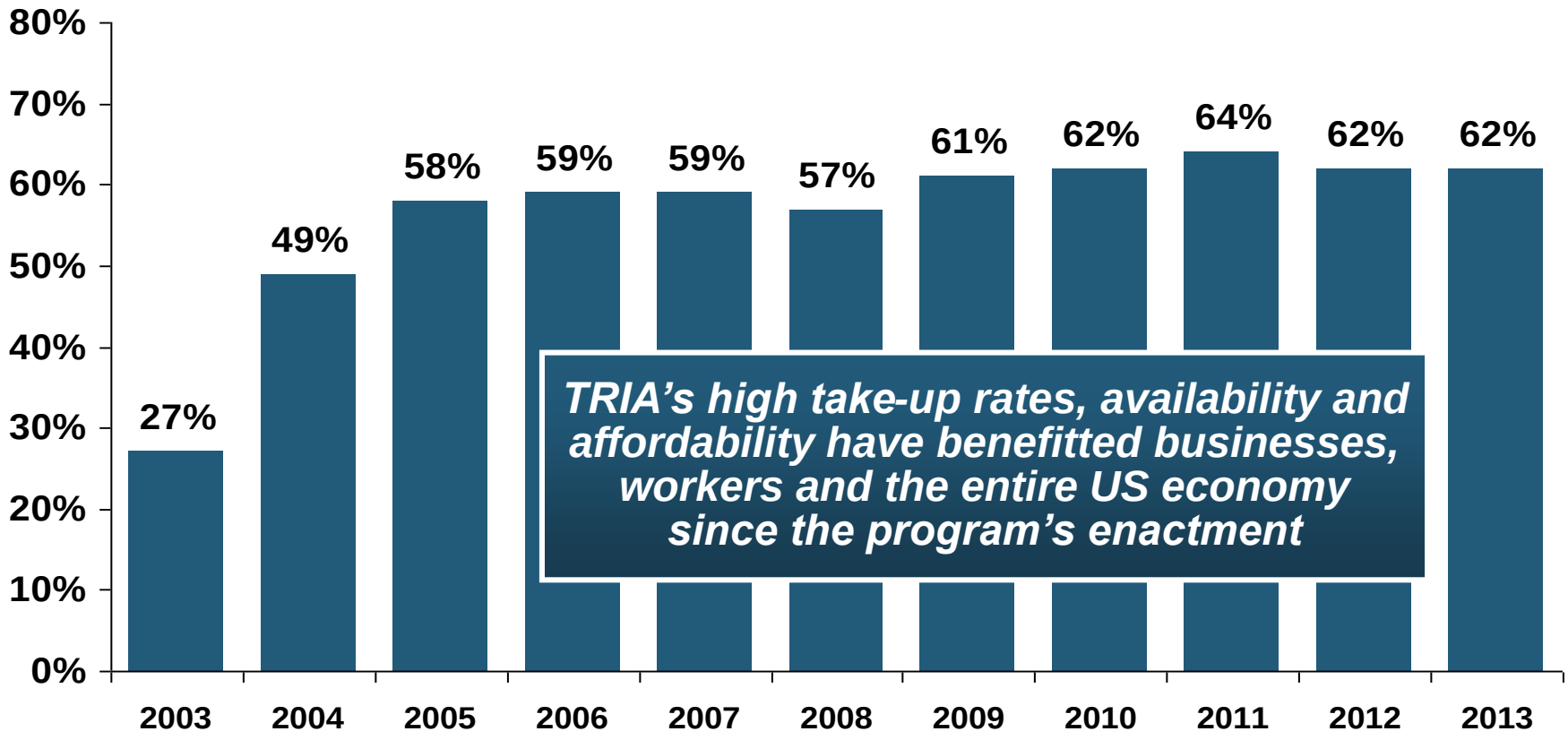


Source: Aon PLC; Insurance Information Institute.

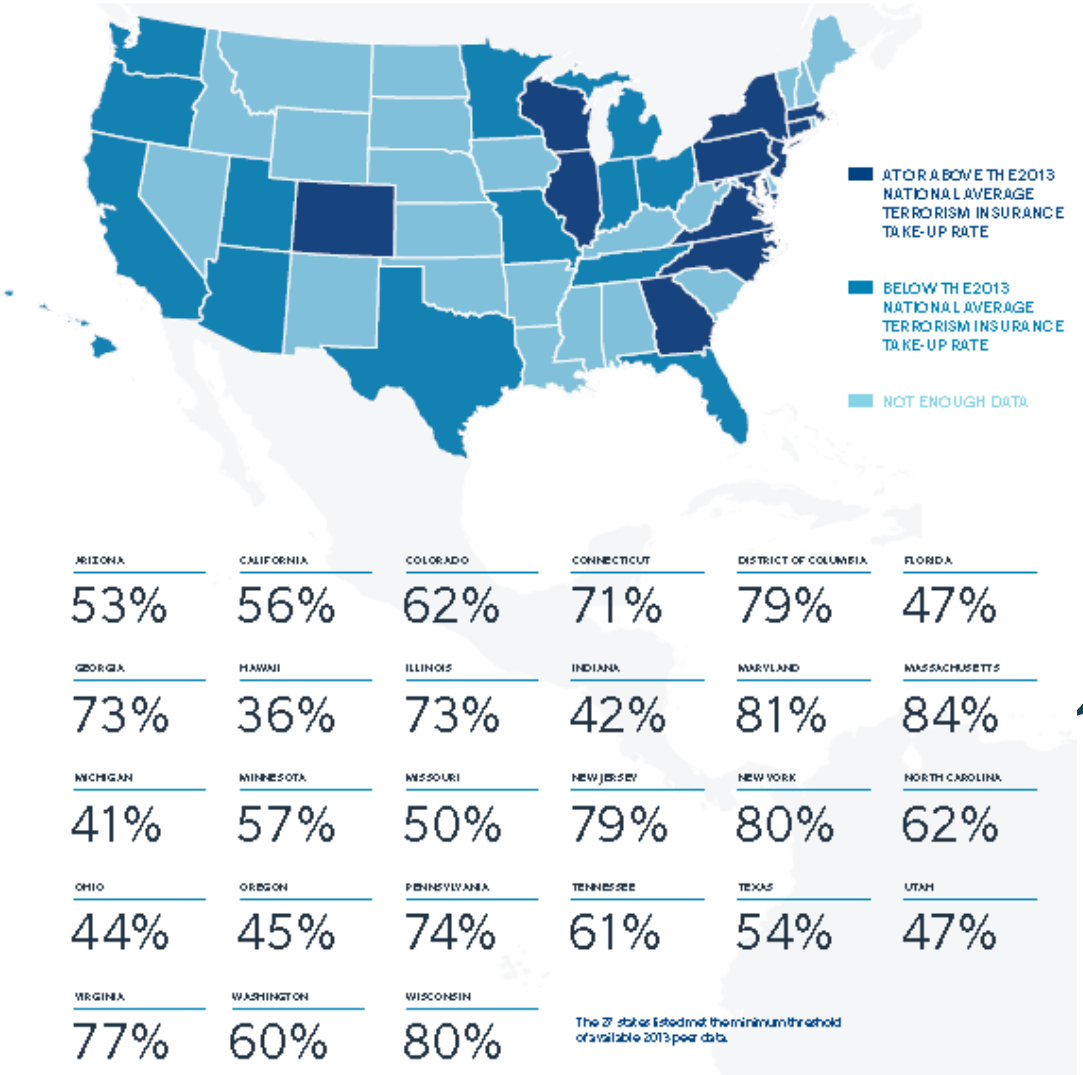
Terrorism Insurance Take-up Rates, By Year, 2003-2013



In 2003, the first year TRIA was in effect, the terrorism take-up rate was 27 percent. Since then, it has increased steadily, remaining in the low 60 percent range since 2009.

Source: Marsh Global Analytics, *2014 Terrorism Risk Insurance Report,* April 2014 and earlier editions.

Terrorism Insurance Take-Up Rates by State for 2013*



The overall US take-up rate for terrorism coverage was 62% in 2013 and ranged from a lows of 41% in Michigan to a high of 84% in Massachusetts (where demand likely increased due to the April 2013 Boston Marathon bombing)

*Data for 27 states with sufficient data.

Source: Marsh *2014 Terrorism Risk Insurance Report*; Insurance Information Institute.

Summary of President's Working Group Report on TRIA (April 2014)

- **Insurance for terrorism risk is available and affordable**
  - **Availability/affordability have has not changed appreciably since 2010**
- **Prices for terrorism risk insurance vary considerably depending on the policyholder's industry and location of risk**
- **Prices have declined since TRIA was enacted**
  - **Currently ~3% to 5% of commercial property insurance premiums**
- **Take-up rates have improved since adoption of TRIA**
  - **Overall take-up rate is steady at ~60% (62% in 2013 per Marsh)**
- ***Market capacity is currently tightening given uncertainty over TRIA reauthorization***
- ***The private market does not have the capacity to provide reinsurance for terror risk to the extent currently provided by TRIA***
- ***In the absence of TRIA, terrorism risk insurance would likely be less available. Coverage that would be available likely would be more costly and/or limited in scope***

Source: Report of the President's Working Group on Financial Markets, *The Long-Term Availability and Affordability of Insurance for Terrorism Risk*, April 2014.

Top 3 Key Facts About TRIA

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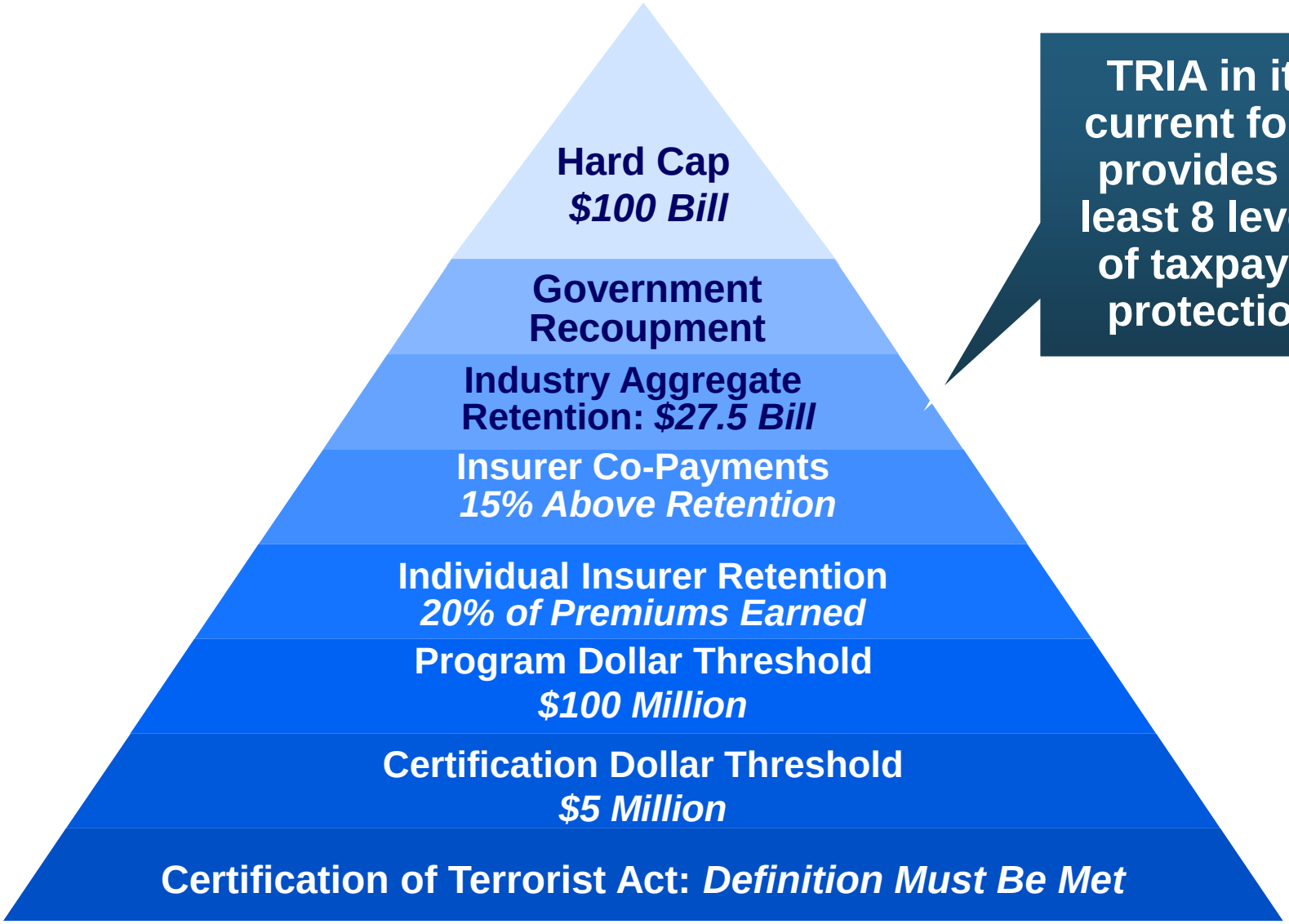
1. **TRIA costs taxpayers virtually nothing**

2. **TRIA as currently structured continues to provide tangible benefits to the U.S. economy in the form of:**
   - **Terrorism insurance market stability, affordability and availability**
   - **Smooth functioning of commercial lending activity**
   - **Employment stimulus**

3. **TRIA is now clearly a critical part of the U.S. national economic security infrastructure**
   - **A primary goal of terrorism is to destabilize the U.S. economy**
   - **Terrorism risk insurance is critical to ensure a swift recovery in the event of future attacks**

- ***Bottom Line: TRIA is an unambiguous, unmitigated success***

Pyramid of Taxpayer Protection: Strong, Stable, Sound and Secure



TRIA in its current form provides at least 8 levels of taxpayer protection

Source: Insurance Information Institute.

Consequences of Substantially Restructuring TRIA

- **Increases in required insurer retentions/deductibles do not "create" new capacity**
- **New capacity has entered primarily because:**
  - **TRIA remains in place**
  - **No major successful attack has occurred since 9/11**
  - **Modest improvement in modeling/understanding terror risk**
- **Many smaller/medium-sized insurers are likely already at or near their exposure limits, so increasing required retentions will *not* incentivize them to write more coverage**
  - **A.M. Best: 19% of insurers with < $500 million in surplus failed stress tests; 11% of those with $500 to $1 billion failed**
  - **Insurance Information Institute: Insurers with <$500 million in surplus wrote 16.8% of TRIA-back lines in 2012; those with less than $1 billion in surplus wrote 23.6% of TRIA-backed coverages**

Consequences of a Failure to Reauthorize TRIA *Followed by a Major Terrorist Attack*

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- **If TRIA is not reauthorized, only limited private insurance would be available to cover losses arising from future attacks**
  - **Potentially large gap between insured and economic losses**
- **The federal government would be called upon to provide very large amounts of aid (tens of billions of dollars +)**
  - **Federal govt. has no delivery mechanism for post-attack aid**
  - **Under TRIA, federal response largely piggybacks on an efficient pvt. Insurer claims adjusting and payment system**
- **The existing standalone market would likely seize and contract**
  - **Depletion of capital→Availability crunch, Prices soar**
  - **Uncertainty over likelihood of future attacks**
  - **Terrorism exclusions would become ubiquitous**
- **Congress would likely be compelled to legislate TRIA anew**

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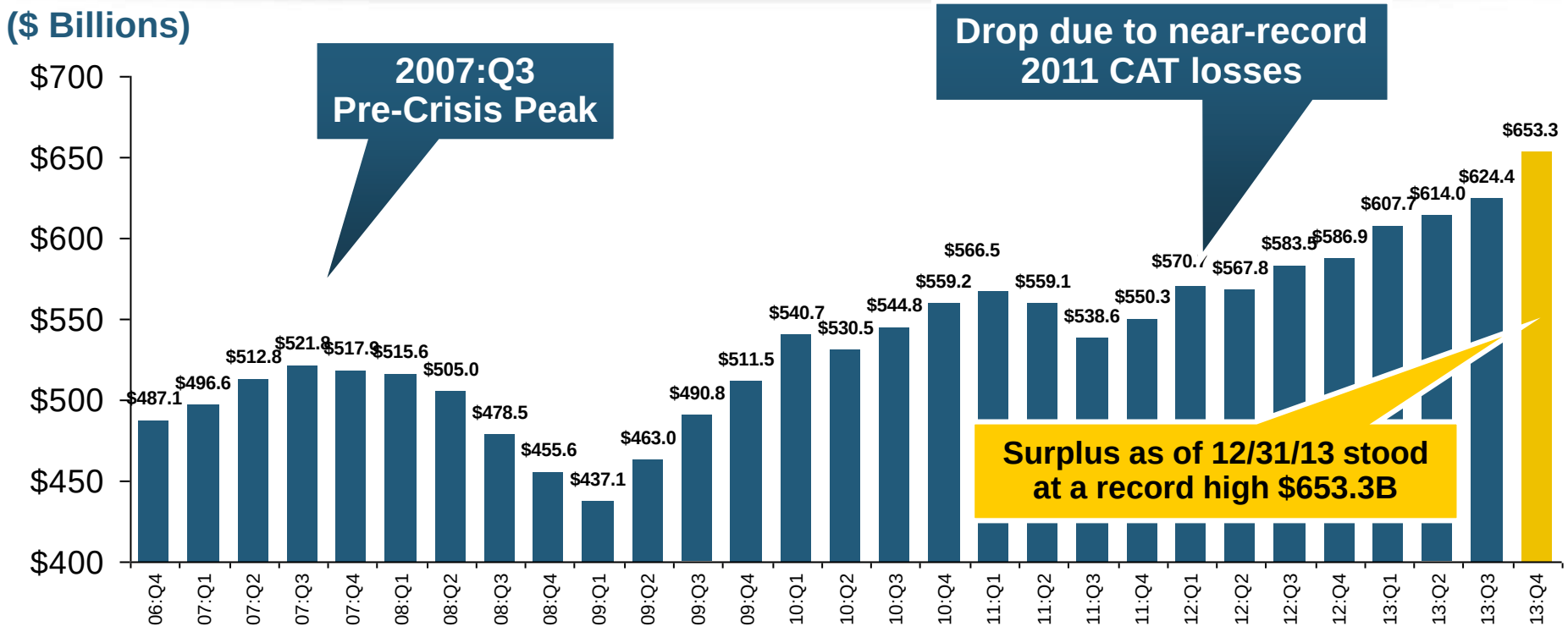
SURPLUS/CAPITAL/CAPACITY

2013 Recorded Yet Another Record High in the Primary and Reinsurance Sectors

Policyholder Surplus, 2006:Q4–2013:Q4



The industry now has $1 of surplus for every $0.73 of NPW, close to the strongest claims-paying status in its history.

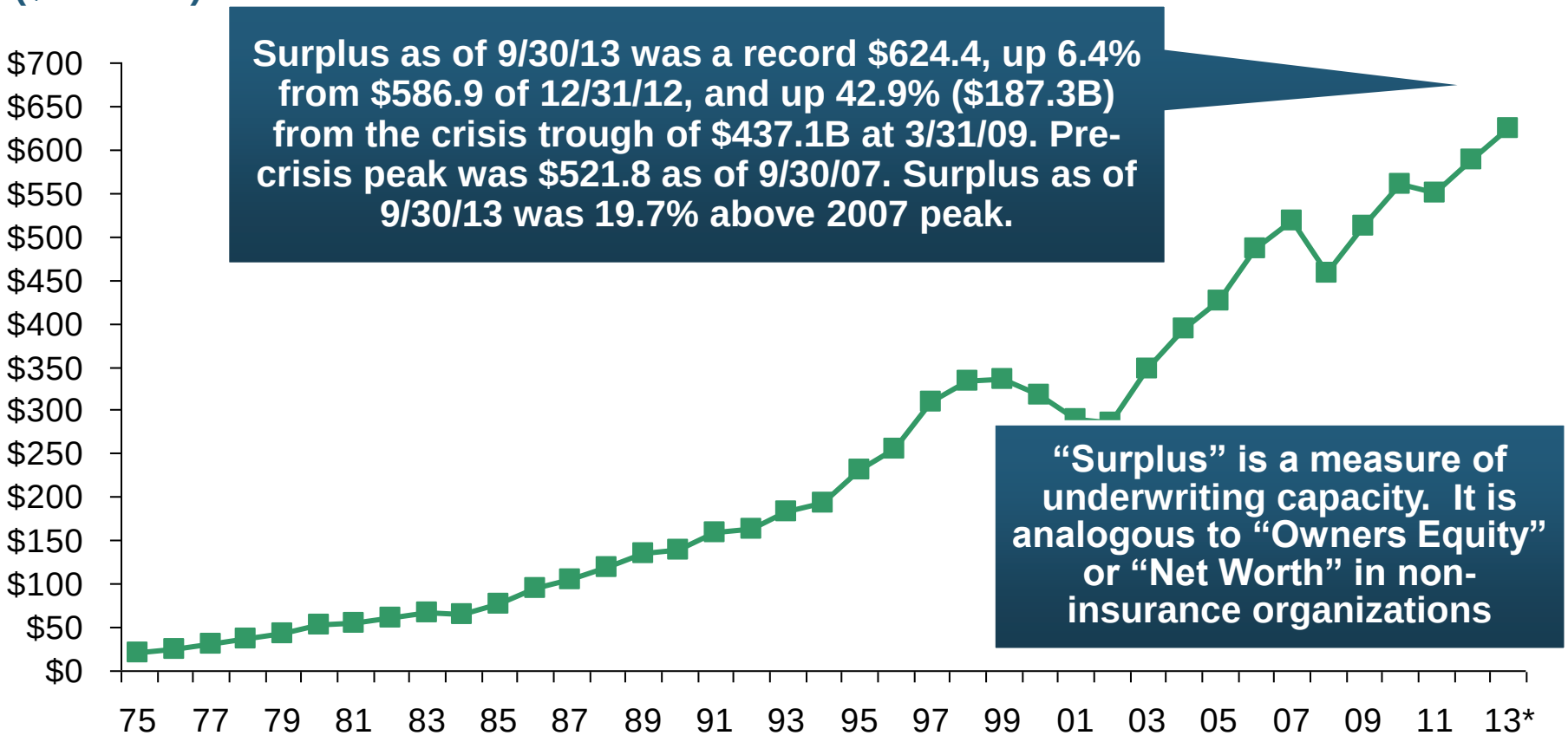
2010:Q1 data includes $22.5B of paid-in capital from a holding company parent for one insurer's investment in a non-insurance business .

The P/C insurance industry entered 2014 in very strong financial condition.

Sources: ISO, A.M .Best.

US Policyholder Surplus: 1975–2013*

($ Billions)



Surplus as of 9/30/13 was a record $624.4, up 6.4% from $586.9 of 12/31/12, and up 42.9% ($187.3B) from the crisis trough of $437.1B at 3/31/09. Pre-crisis peak was $521.8 as of 9/30/07. Surplus as of 9/30/13 was 19.7% above 2007 peak.

"Surplus" is a measure of underwriting capacity. It is analogous to "Owners Equity" or "Net Worth" in non-insurance organizations

The Premium-to-Surplus Ratio Stood at $0.78:$1 as of 9/30/13, a Near Record Low (at Least in Recent History)*

* As of 9/30/13.

Source: A.M. Best, ISO, Insurance Information Institute.

U.S. INSURANCE MERGERS AND ACQUISITIONS, 2002-2012 (1)

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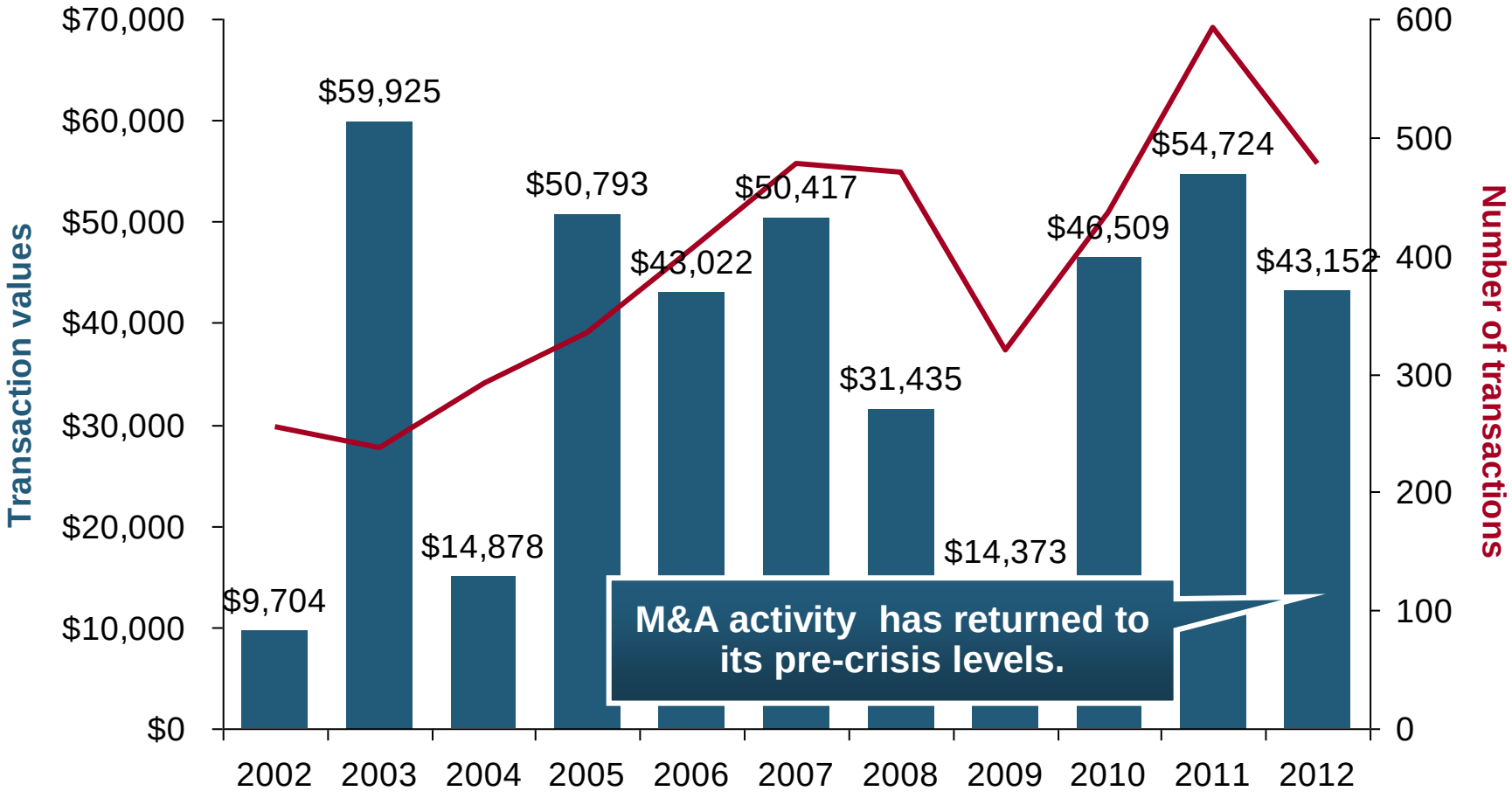
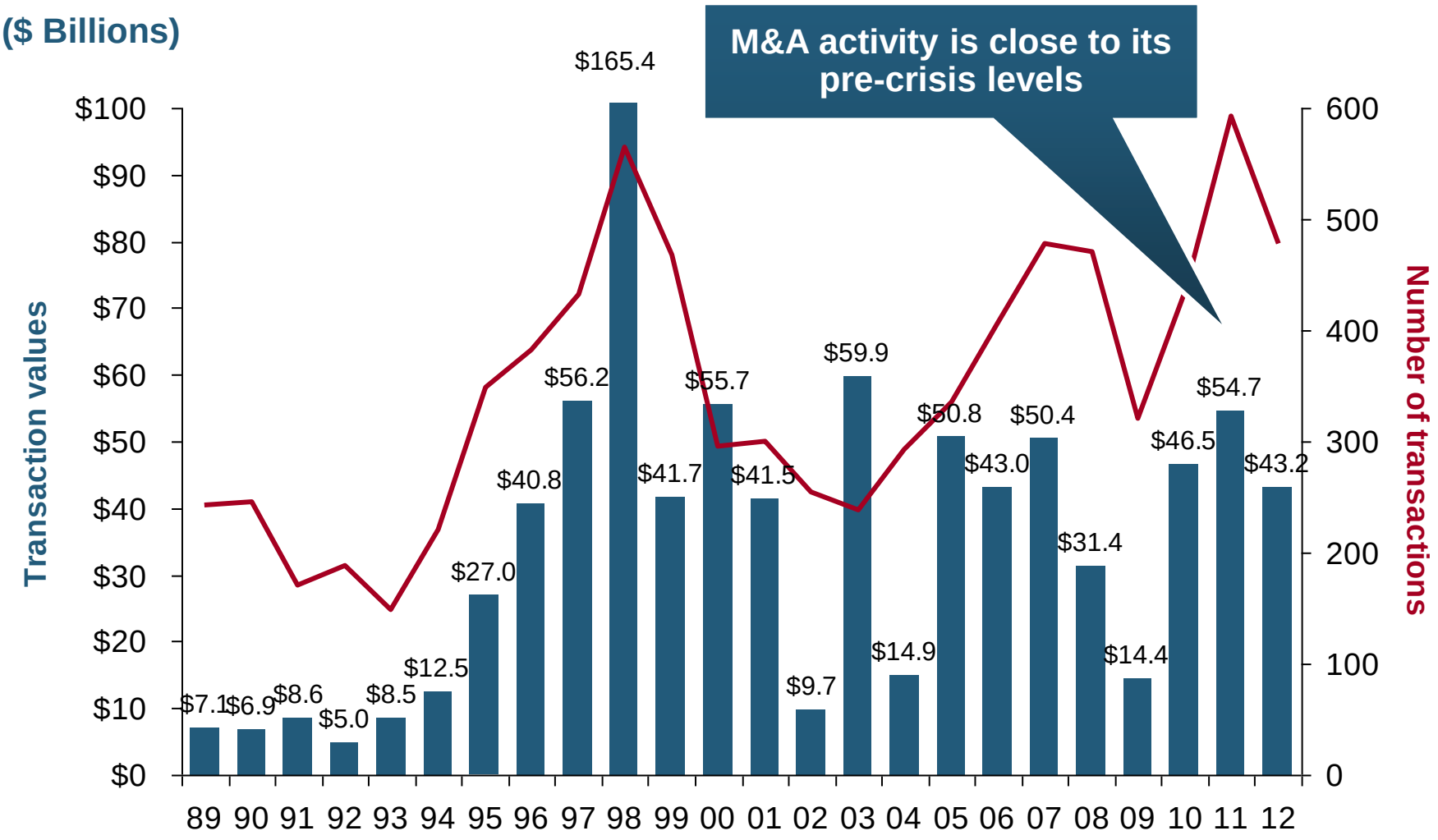
($ Millions)



(1) Includes transactions where a U.S. company was the acquirer and/or the target.

Source: Conning proprietary database.

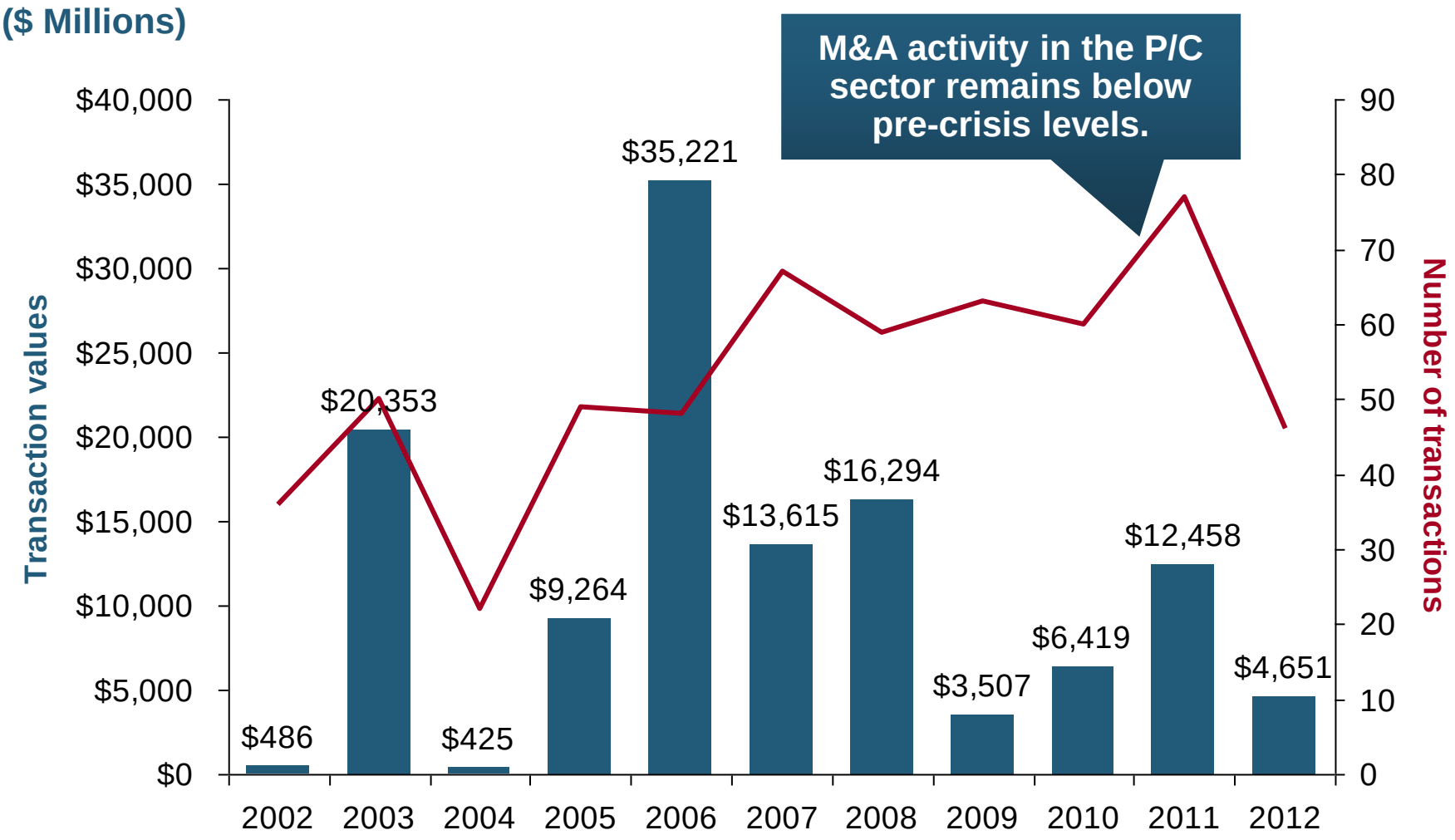
U.S. INSURANCE MERGERS AND ACQUISITIONS, All Sectors, 1989-2012 (1)



(1) Includes transactions where a U.S. company was the acquirer and/or the target.

Source: Conning proprietary database.

U.S. INSURANCE MERGERS AND ACQUISITIONS, P/C SECTOR, 2002-2012 (1)



(1) Includes transactions where a U.S. company was the acquirer and/or the target.

Source: Conning proprietary database.

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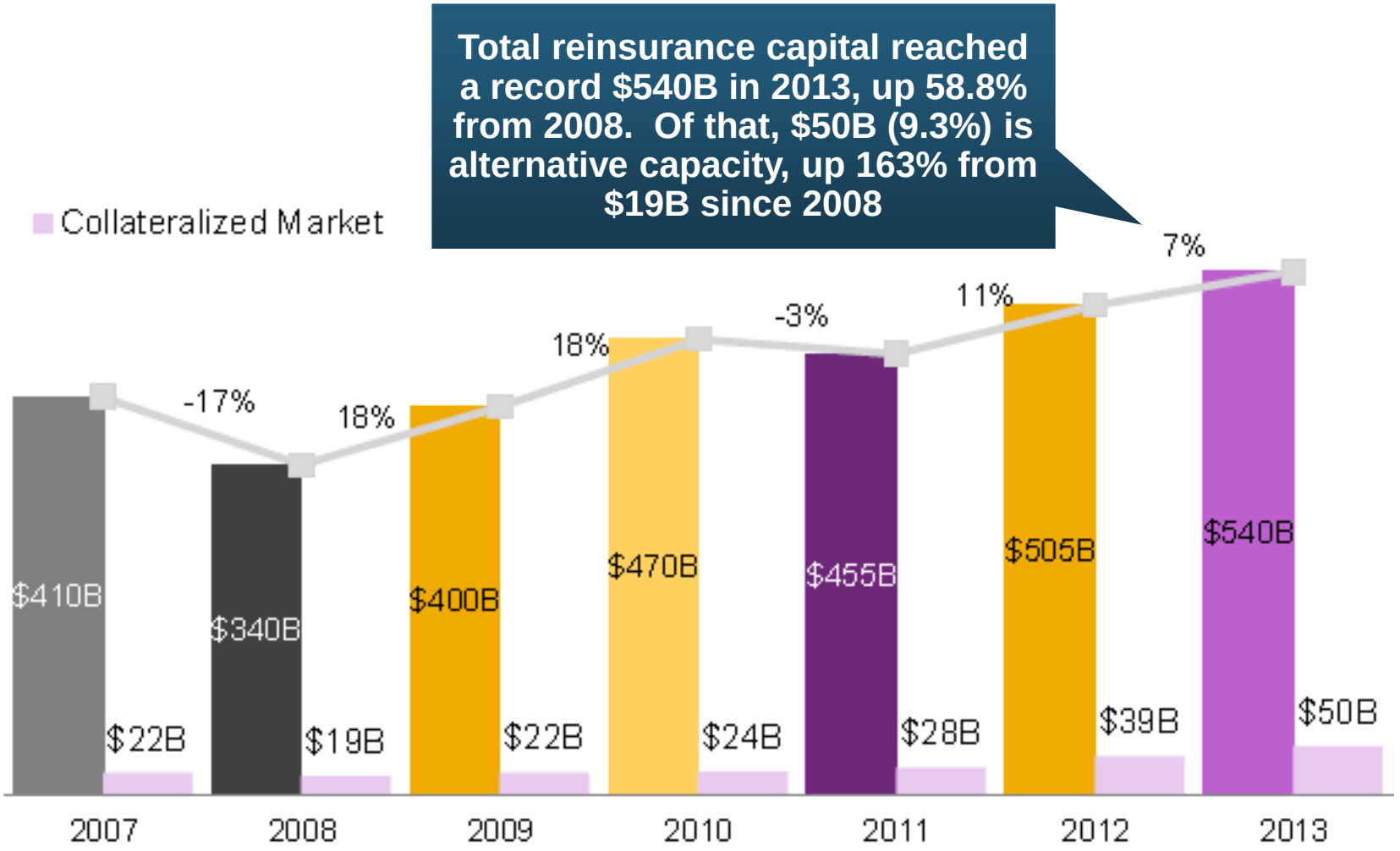
REINSURANCE MARKET CONDITIONS

Ample Capacity as Alternative Capital is Transforming the Market—And Pushing Down Prices

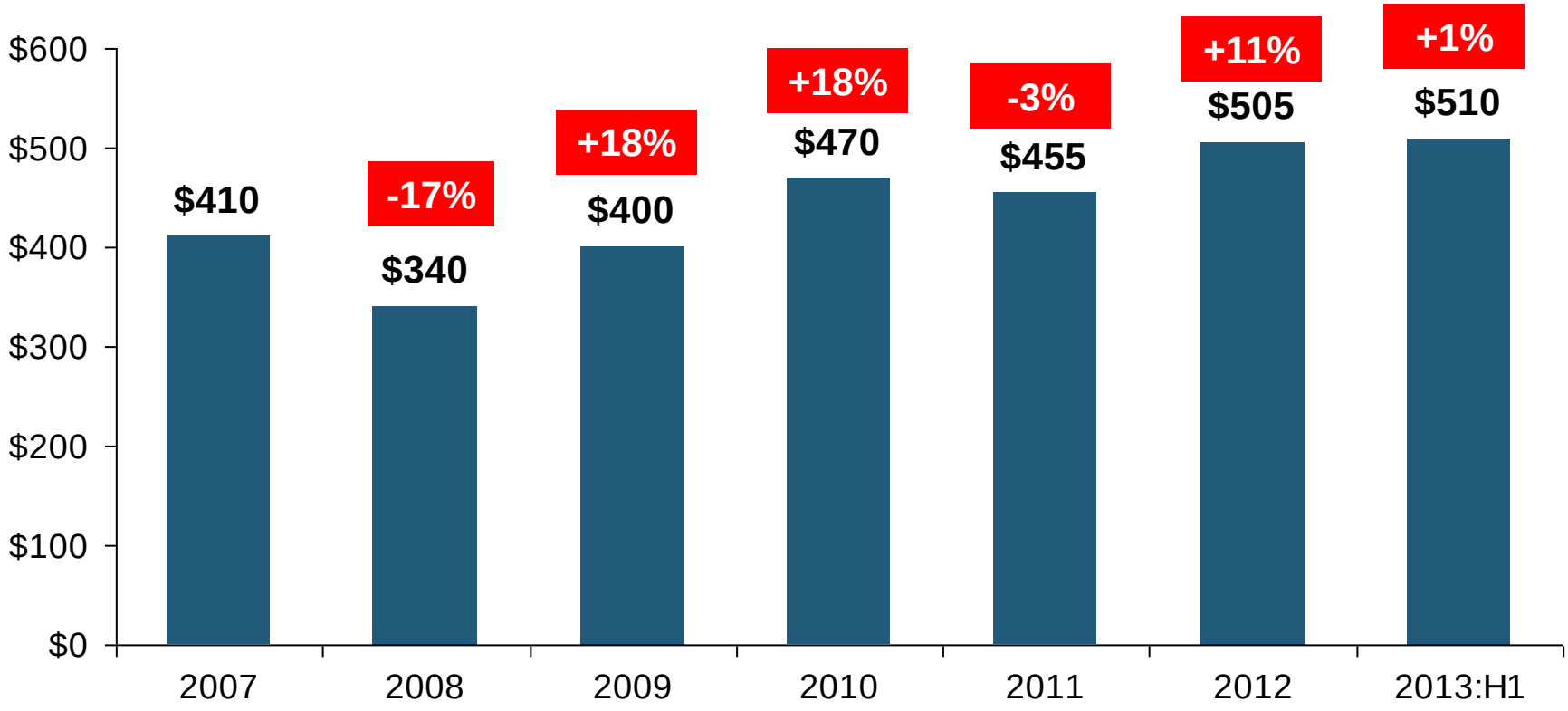
Global Reinsurance Capital (Traditional and Alternative), 2007 - 2013



Source: Aon Benfield *Reinsurance Market Outlook,* April 1, 2014; Insurance Information Institute.

Global Reinsurer Capital, 2007-2013:H1*

($ Billions)

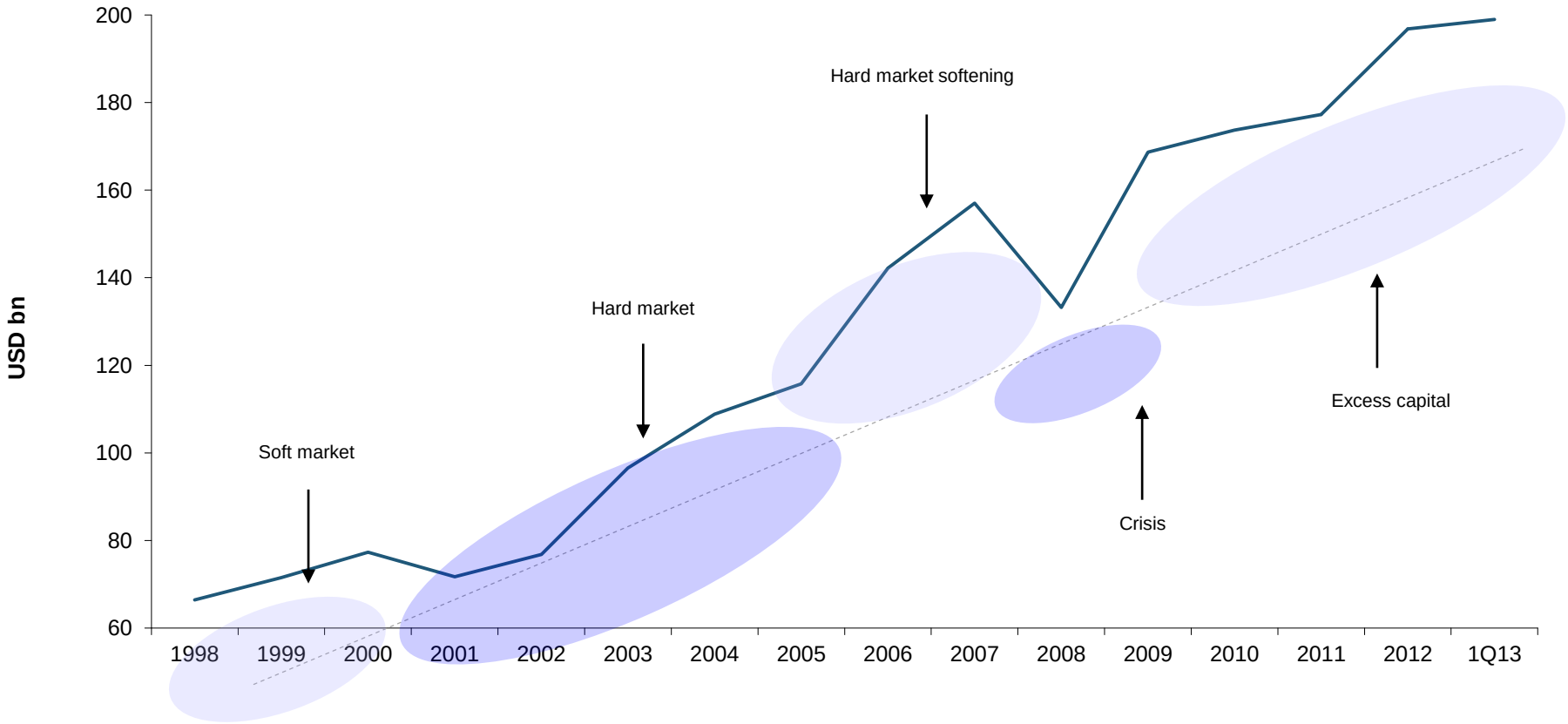


Global Reinsurance Capital Has Been Trending Generally Upward Since the Global Financial Crisis, a Trend that Seems Likely to Continue

*Includes both traditional and non-traditional forms of reinsurance capital.

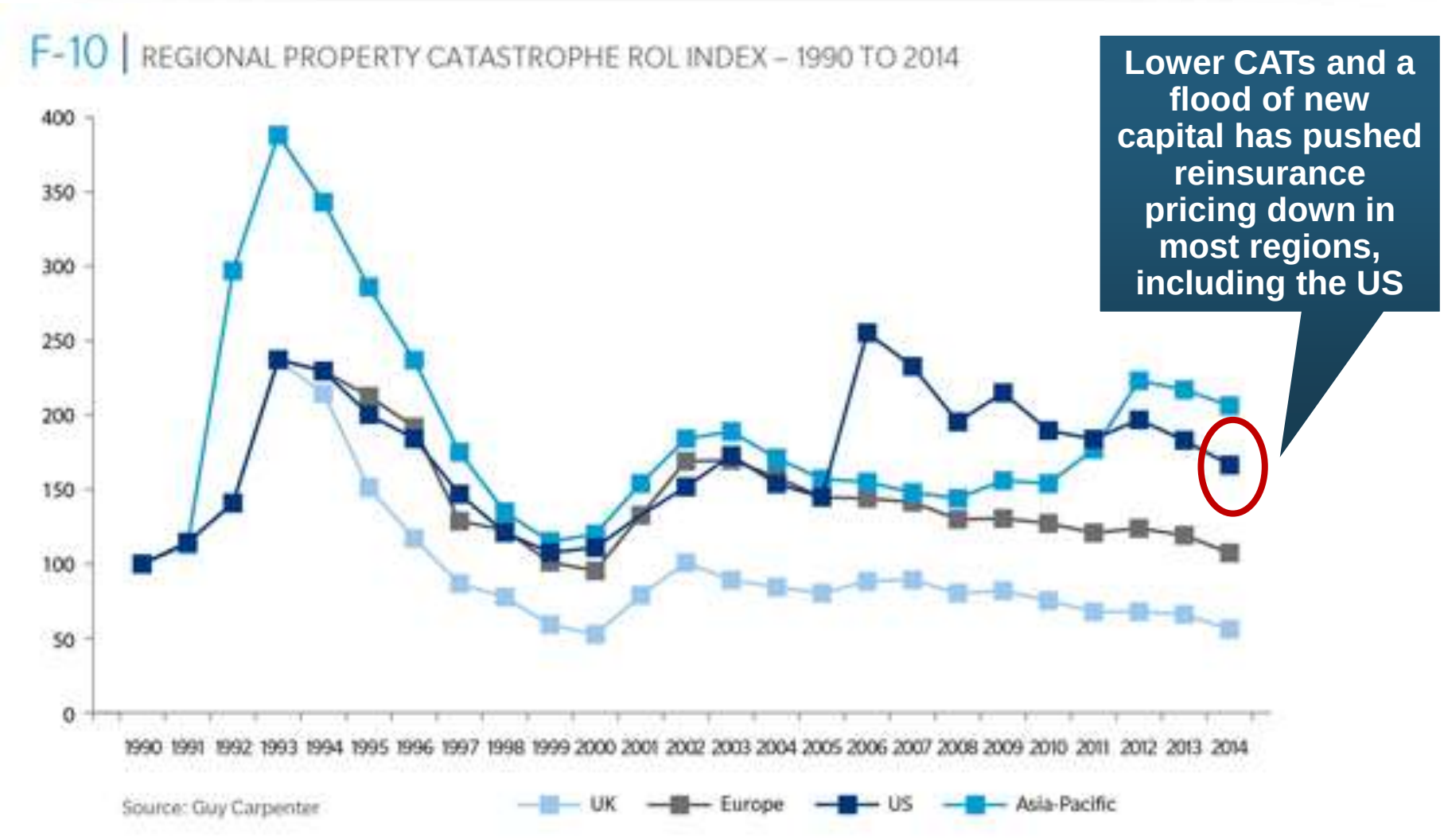
Source: Aon Benfield Aggregate study for the 6 months ending June 2013; Insurance Information Institute.

Long-Term Evolution of Shareholders' Funds for the Guy Carpenter Global Reinsurance Composite



Source: Guy Carpenter

Reinsurance Pricing: Rate-on-Line Index by Region, 1990 – 2014*



*As of Jan. 1.
Source: Guy Carpenter

Reinsurer Combined Ratios (Aon Benfield Aggregate), 2007 - 2013

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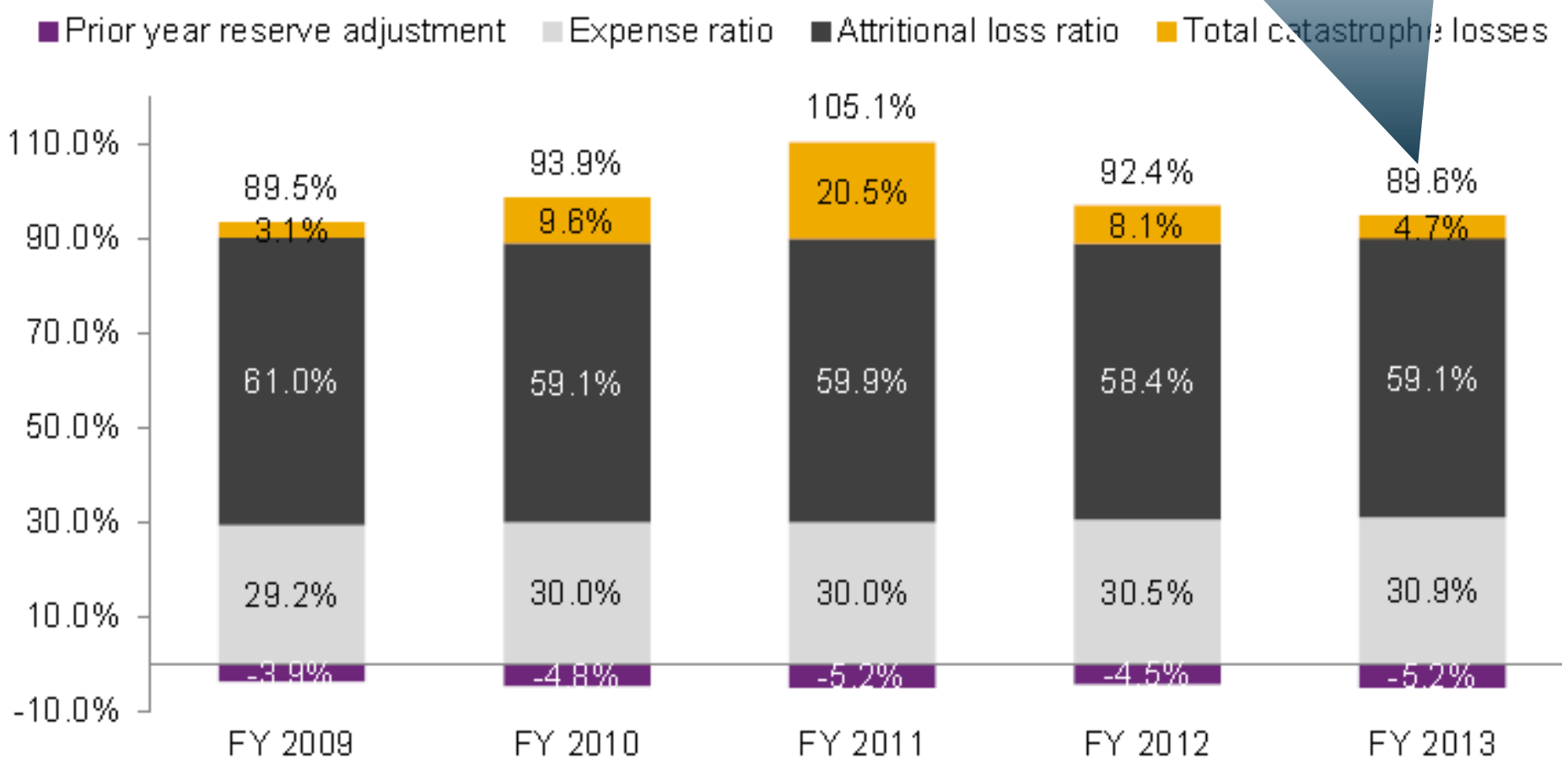
Reinsurers posted a combined under 90 in 2013, the best result since 2009



Source: Aon Benfield *Reinsurance Market Outlook,* April 1, 2014; Insurance Information Institute.

Sources of Reinsurance Capital Change: YE 2012 to YE 2013

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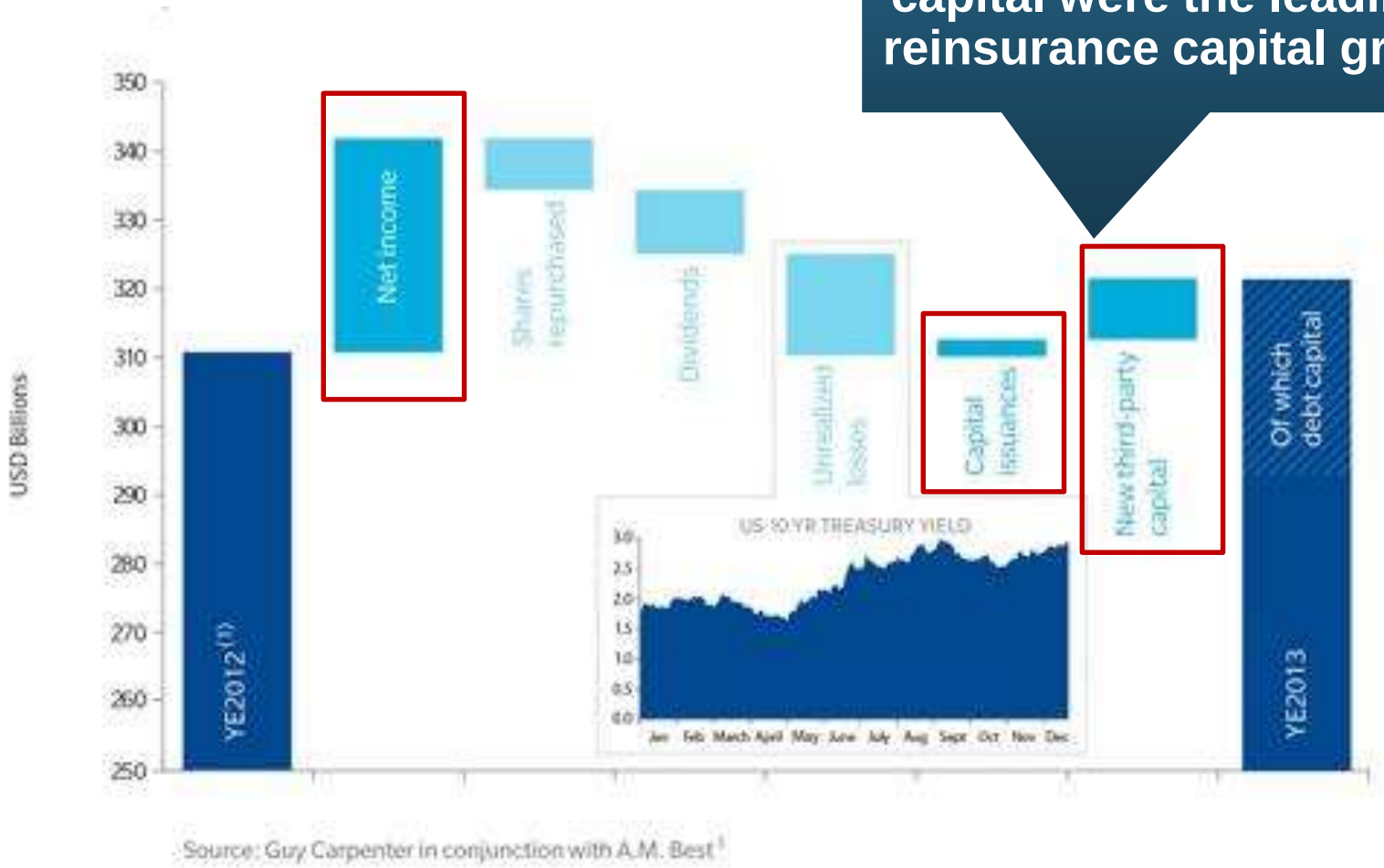
Net income and new 3rd party capital were the leading source of reinsurance capital growth in 2013



Sources: Guy Carpenter and A.M. Best; Insurance Information Institute .

Global Insurance Capital, 2007 - 2013

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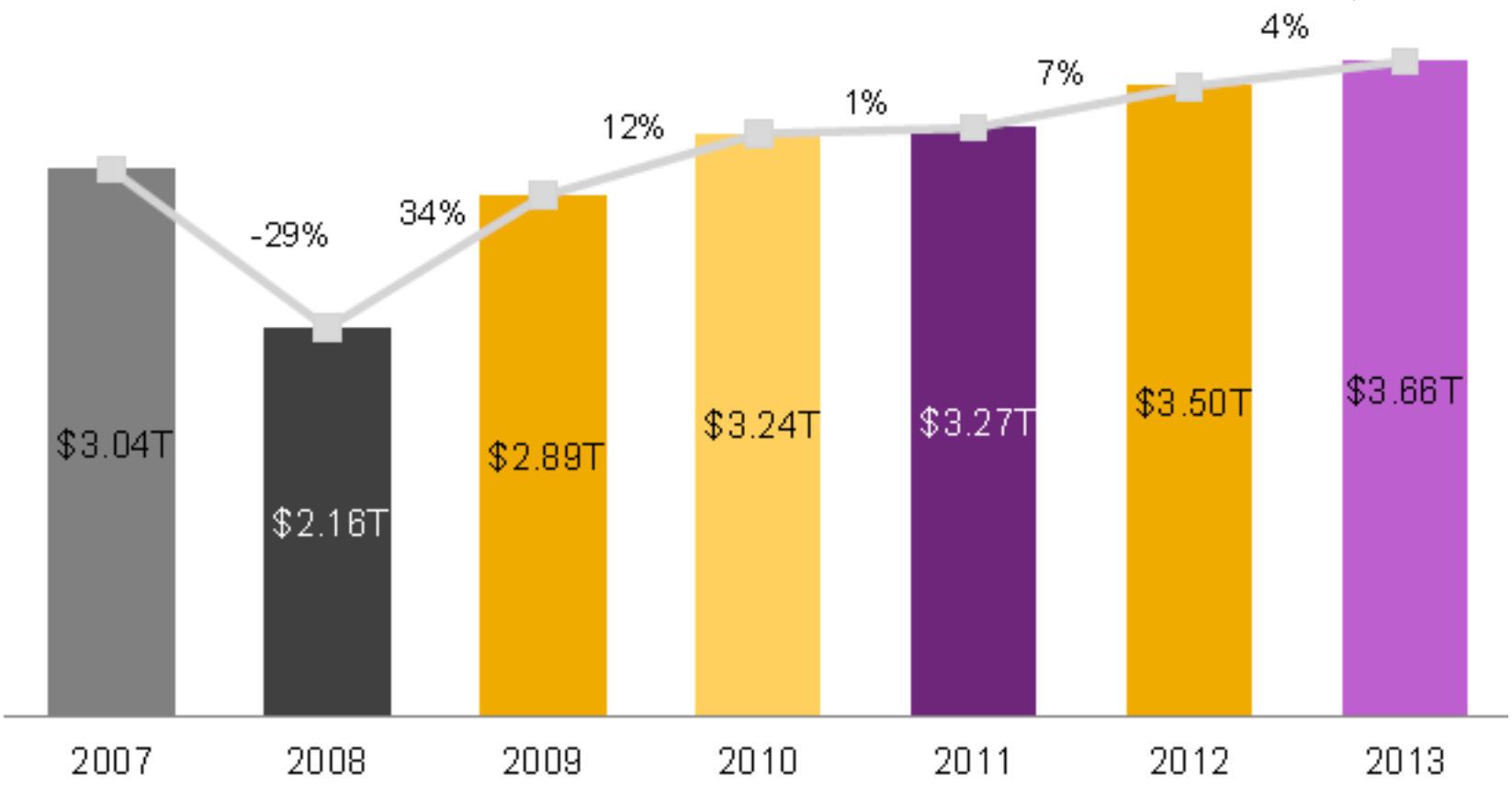
Insurance capital increased by 69.4% ($1.5 trillion) since the depths of the global financial crisis in 2008



Source: Aon Benfield *Reinsurance Market Outlook,* April 1, 2014; Insurance Information Institute.

Alternative Capacity as a Percentage of Global Property Catastrophe Reinsurance Limit

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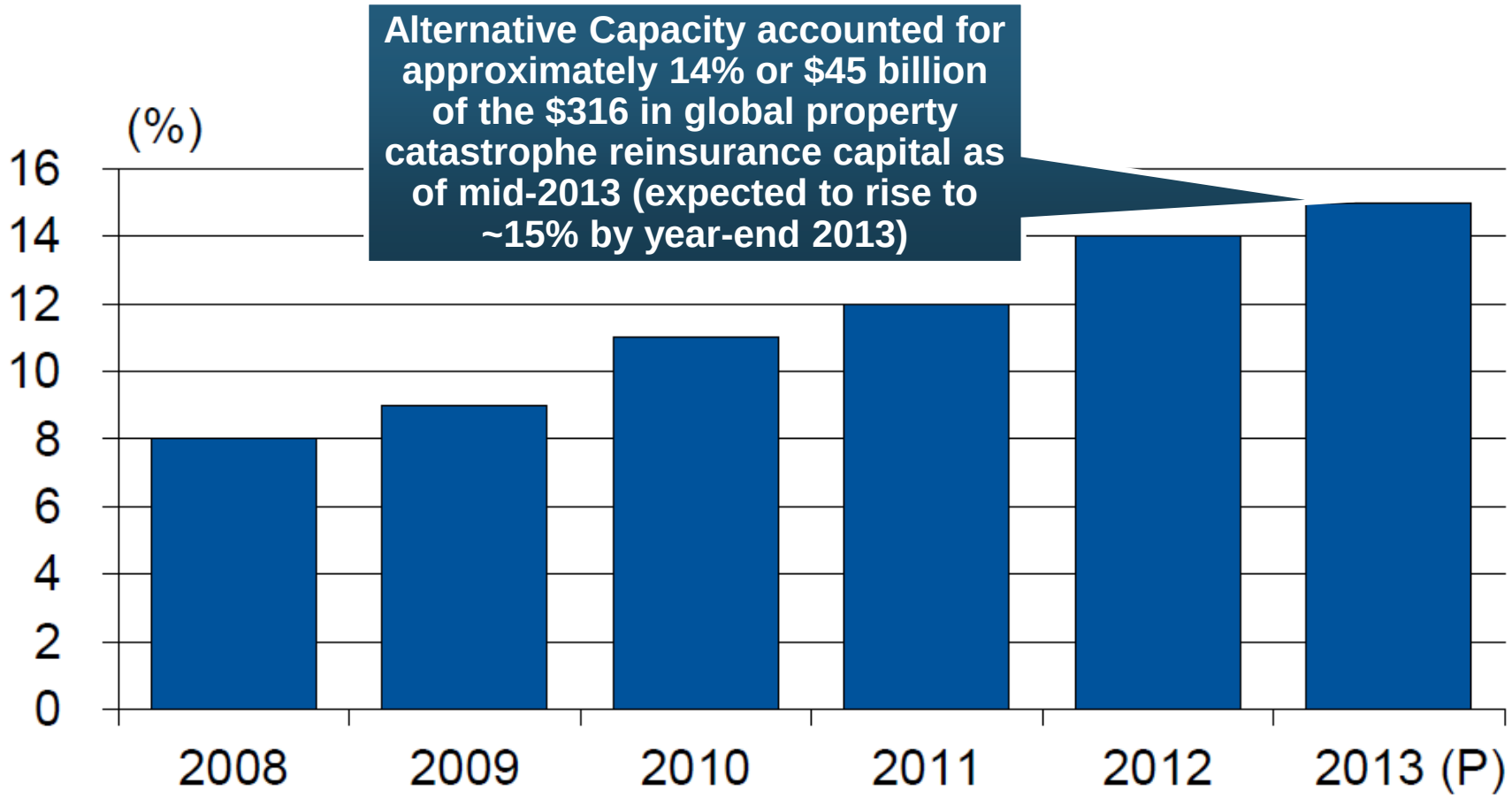
(As of Year End)



Source: Guy Carpenter

Property Catastrophe Reinsurance Capacity by Source as of Mid-2013 ($ Bill)

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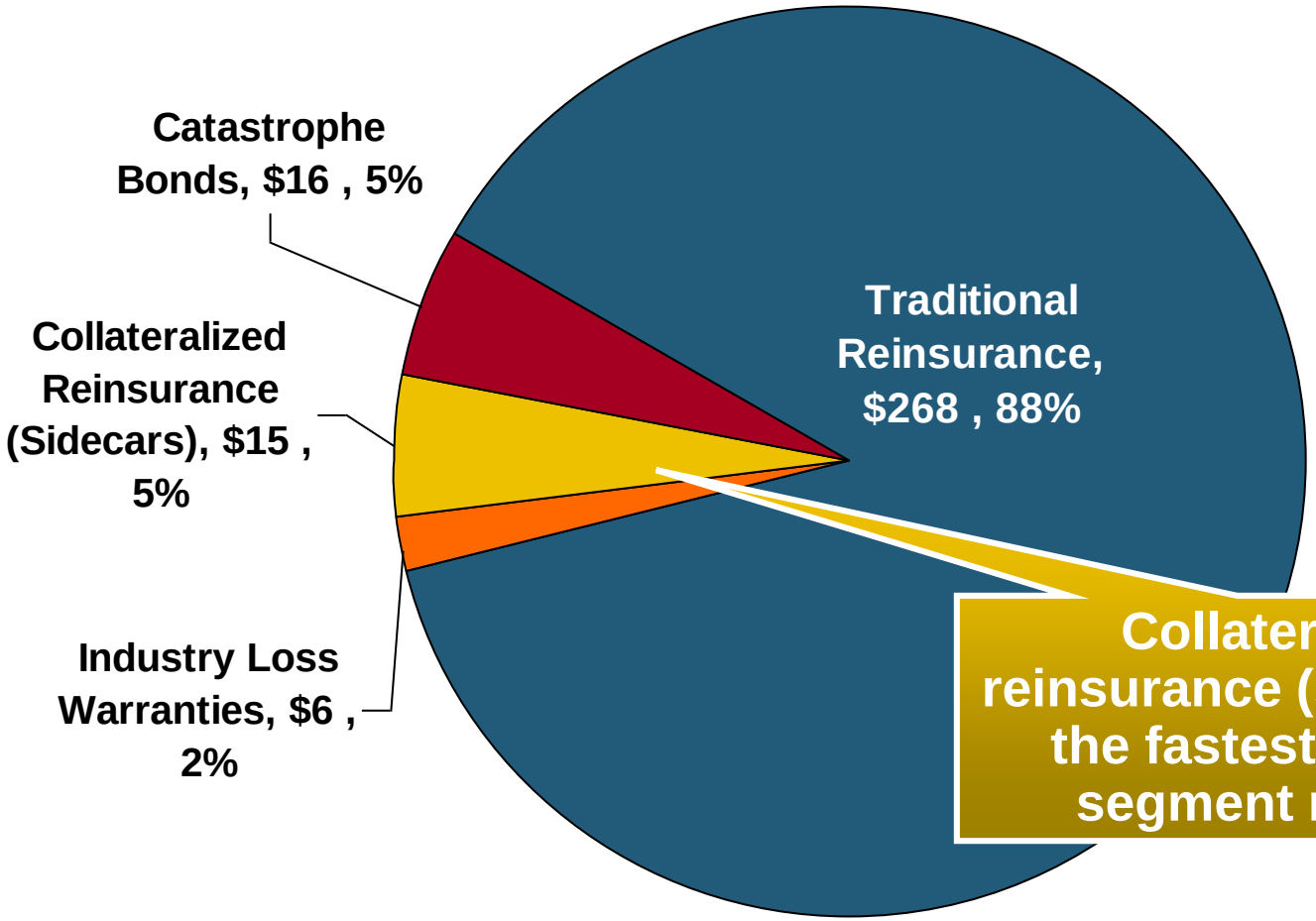
Total = $316 Billion*

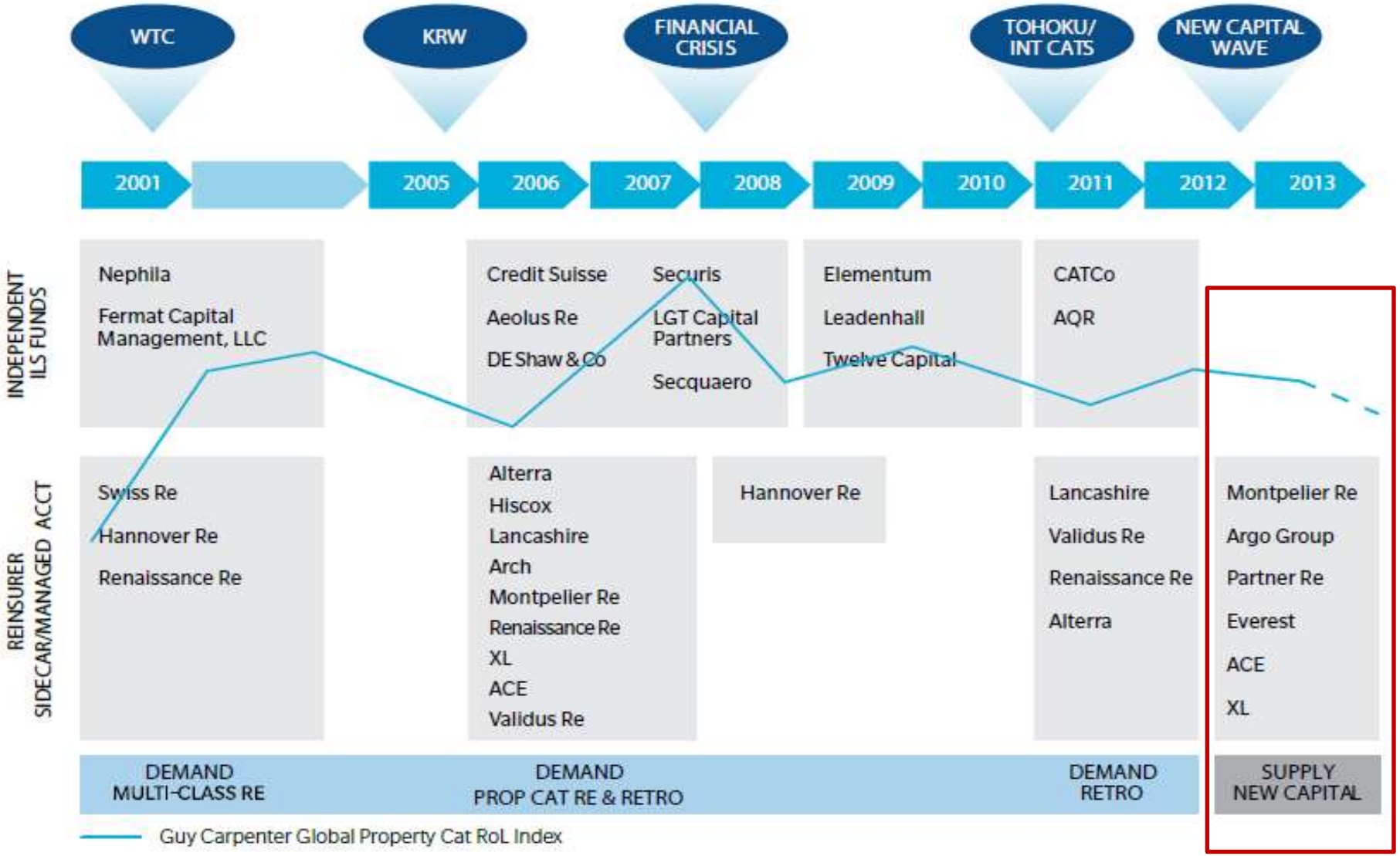


"Convergence Capital" accounted for an estimated $45B or 14% or total property catastrophe reinsurance capacity as of mid-2013, up $10B over the past 18 months (since 1/1/12). Penetration of this type of capacity is growing

Collateralized reinsurance (sidecars) is the fastest growing segment recently

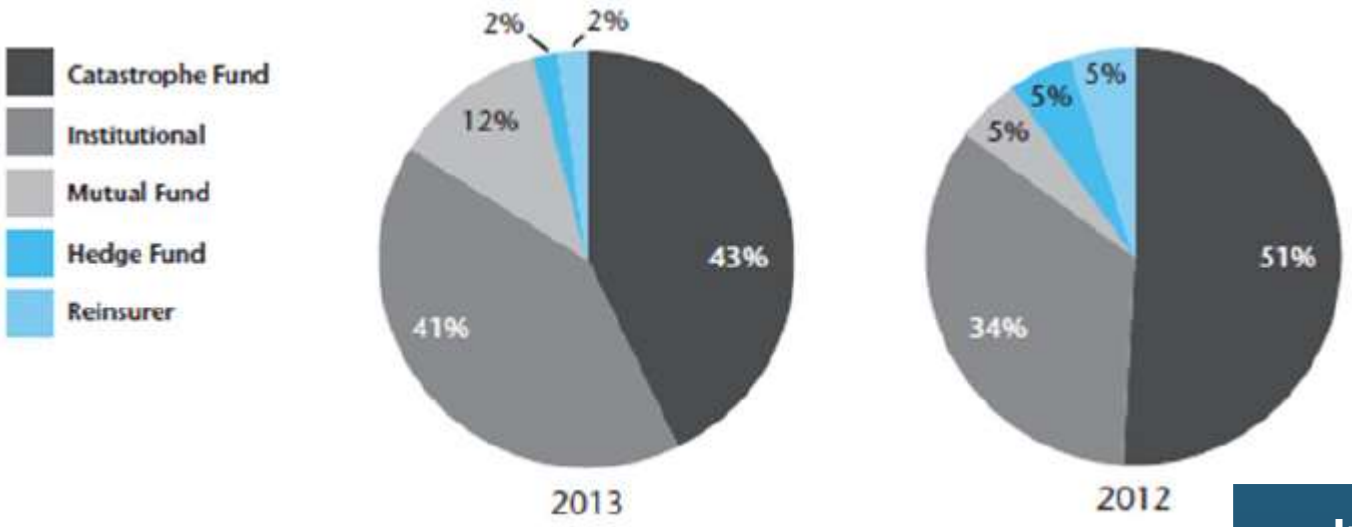
Source: Guy Carpenter; *Mid-Year Market Report,* September 2013; Insurance Information Institute.

Alternative Capacity Development, 2001—2013:H1



Source: Guy Carpenter; *Mid-Year Market Report,* September 2013; Insurance Information Institute.

Investor by Category, 2013 vs. 2012*



Institutional Investors are accounting for a larger share of alternative reinsurance investors

*As of June 30 each year.

Source: Aon Benfield Securities; Insurance Information Institute.

Non-Traditional Property Catastrophe Limits by Type, YE 2012 vs. YE 2015E

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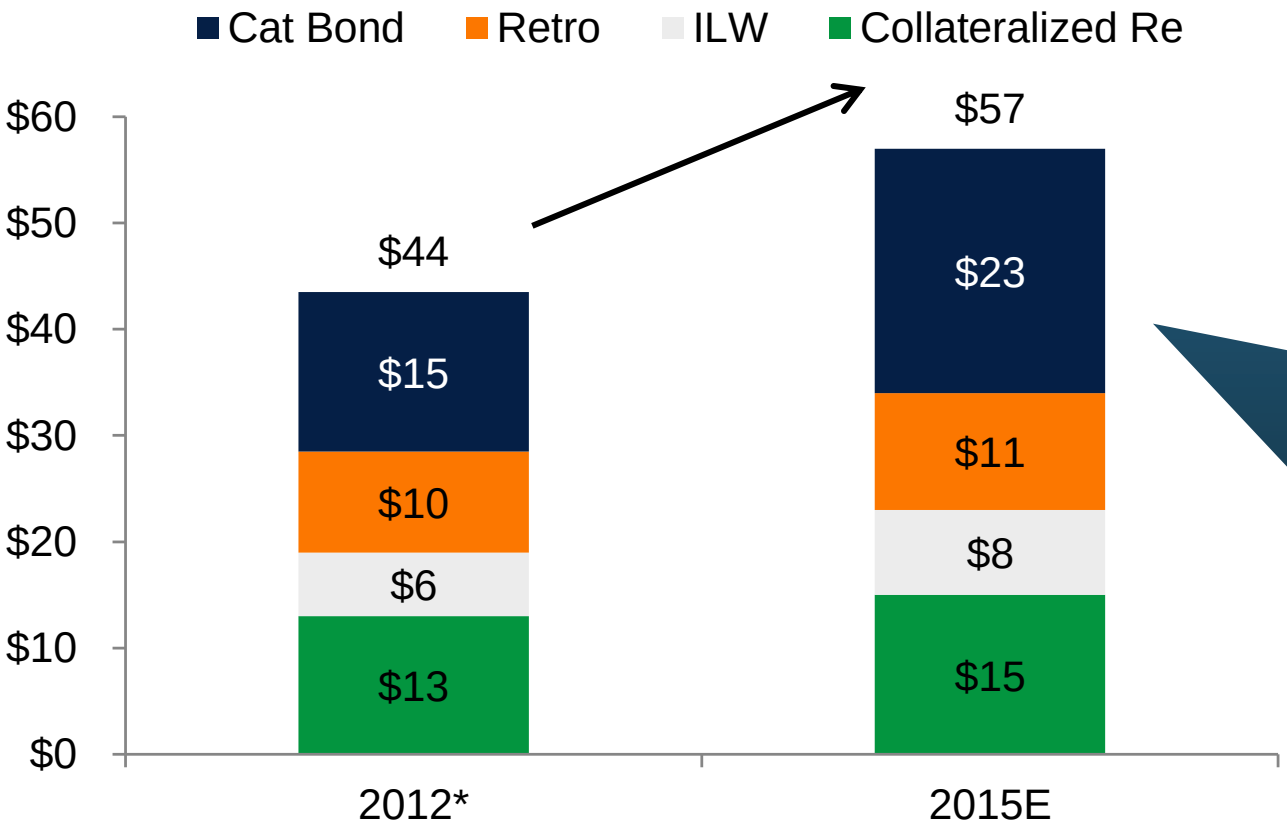
NON-TRADITIONAL P/CAT LIMITS BY TYPE



Alternative capital is expected to rise by 30% by YE 2015 and will ultimately account for 20-30% of total reinsurance spend, according to Guy Carpenter

Source: Guy Carpenter; *As Of Mar-2013

Source: Guy Carpenter; Reinsurance Association of America; Insurance Information Institute.

Catastrophe Bonds: Issuance and Outstanding, 1997- 2014:Q1*

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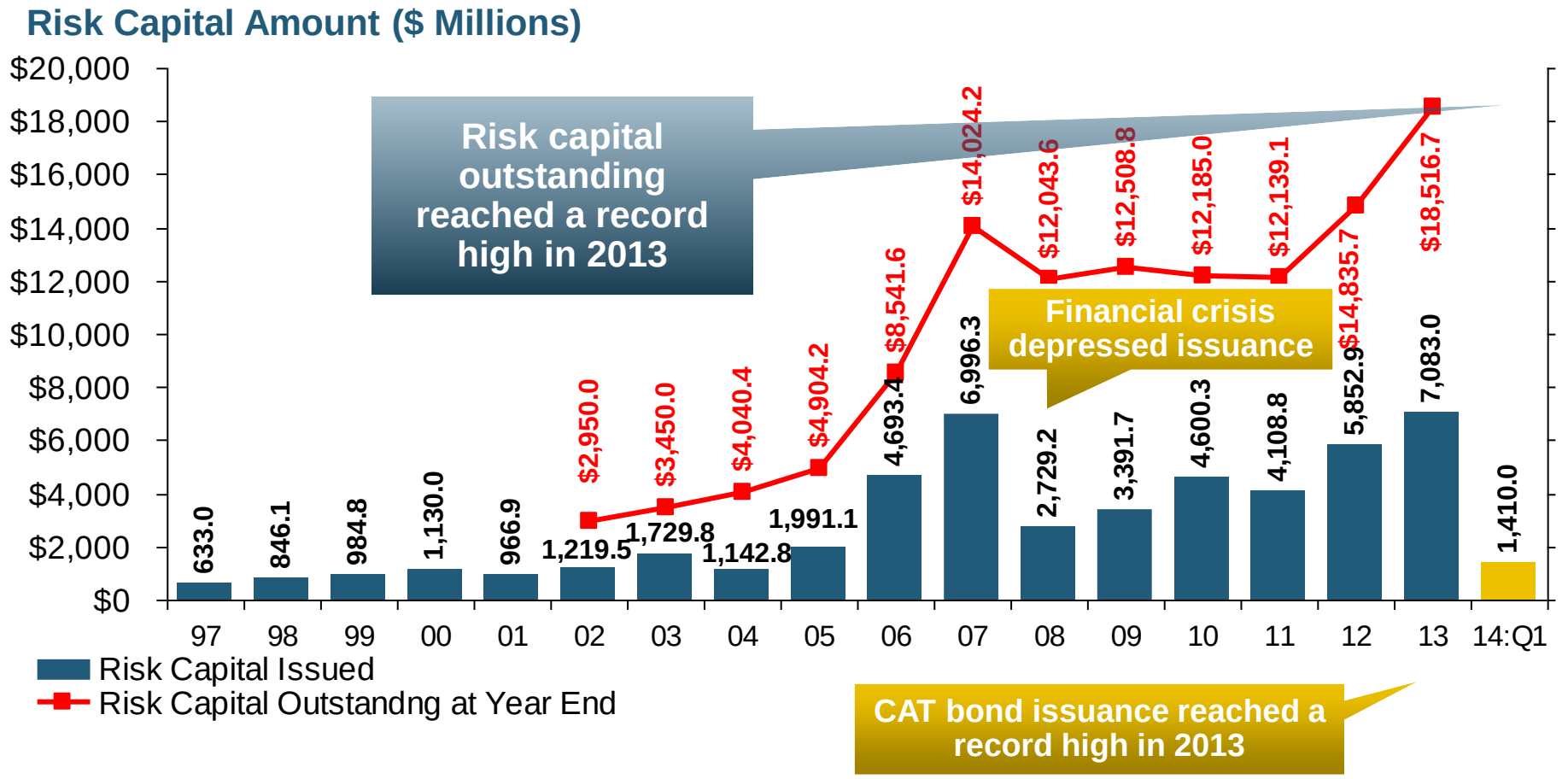

Catastrophe Bond Issuance Is Approaching Pre-Crisis Levels While Risk Capital Outstanding Stands at an All-Time Record

*Through Jan. 31, 2014.
Source: Guy Carpenter; Insurance Information Institute.

Questions Arising from Influence of Alternative Capital

- **Could Pension Fund Money Swamp Traditional Capacity?**
  - US private pension funds hold ~$7 trillion in assets
  - 2% allocation = $140 billion
  - Global property cat capital = ~$316 bill as of mid-2013
- **Do New Investors Have a Lower Cost of Capital?**
  - New capacity expects 6-8% rate of return compared to 8-10% for traditional reinsurance, according to Dowling & Partners
- **Will Reinsurance Pricing Become More Closely Linked to Interest Rates?**
  - What happens when interest rates rise?
- **Terms and Conditions Could Weaken**
  - Multi-year deals

Questions Arising from Influence of Alternative Capital

- **What Will Happen When Investors Face Large-Scale Losses?**
- **Does ILS Have a Higher Propensity to Litigate?**
  - **Short-term focus could contribute to disputes**
  - **Large share of triggered transactions ended up in dispute**
- **How Low Will ROLs Be Pushed?**
- **Does the New Interconnectedness with Capital Markets Lend Credence to the Suggestion that Reinsurance Is a Systemic Risky Business?**
- **Will Alternative Capital Drive Consolidation Among Traditional Reinsurers?**
  - **Has the mating dance begun? → *Endurance/Aspen***

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INVESTMENTS: THE NEW REALITY

Investment Performance is a Key Driver of Profitability

Depressed Yields Will Necessarily Influence Underwriting & Pricing

Property/Casualty Insurance Industry Investment Income: 2000–2013[1]

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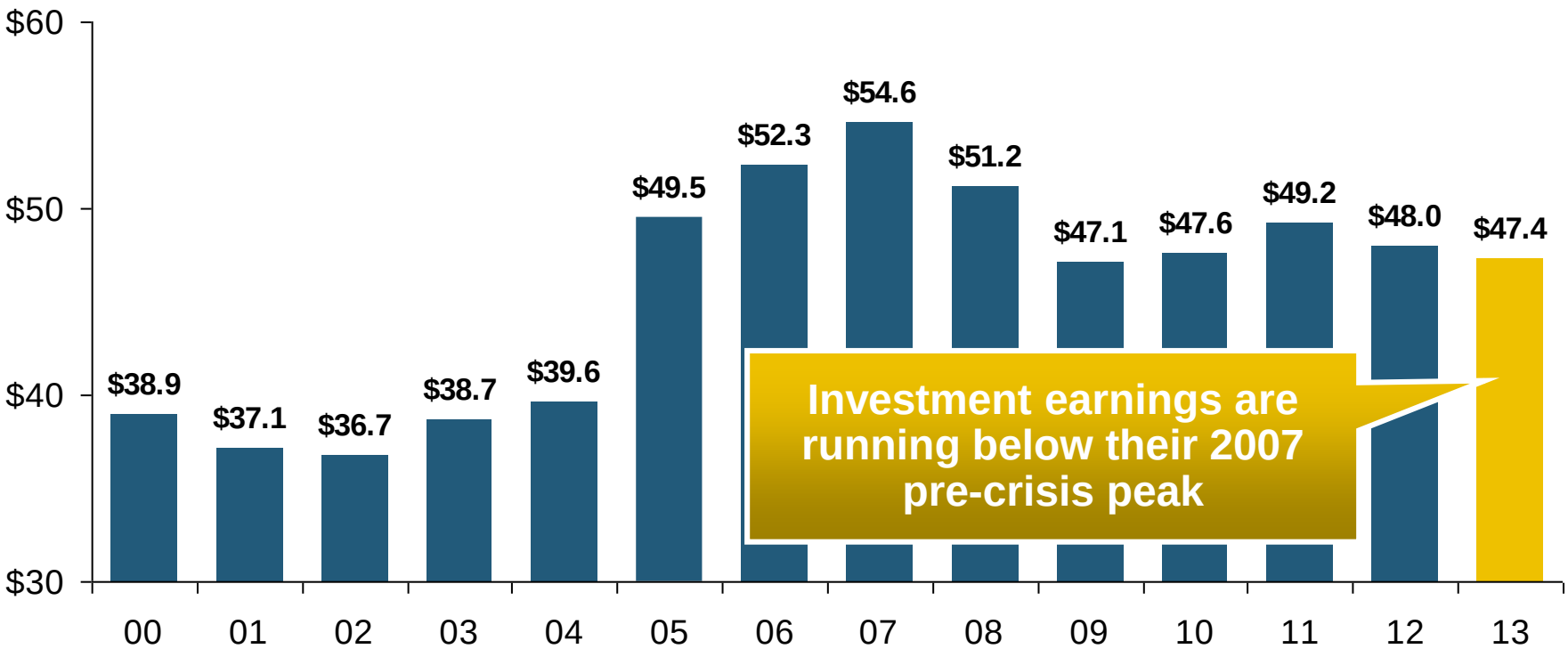
($ Billions)



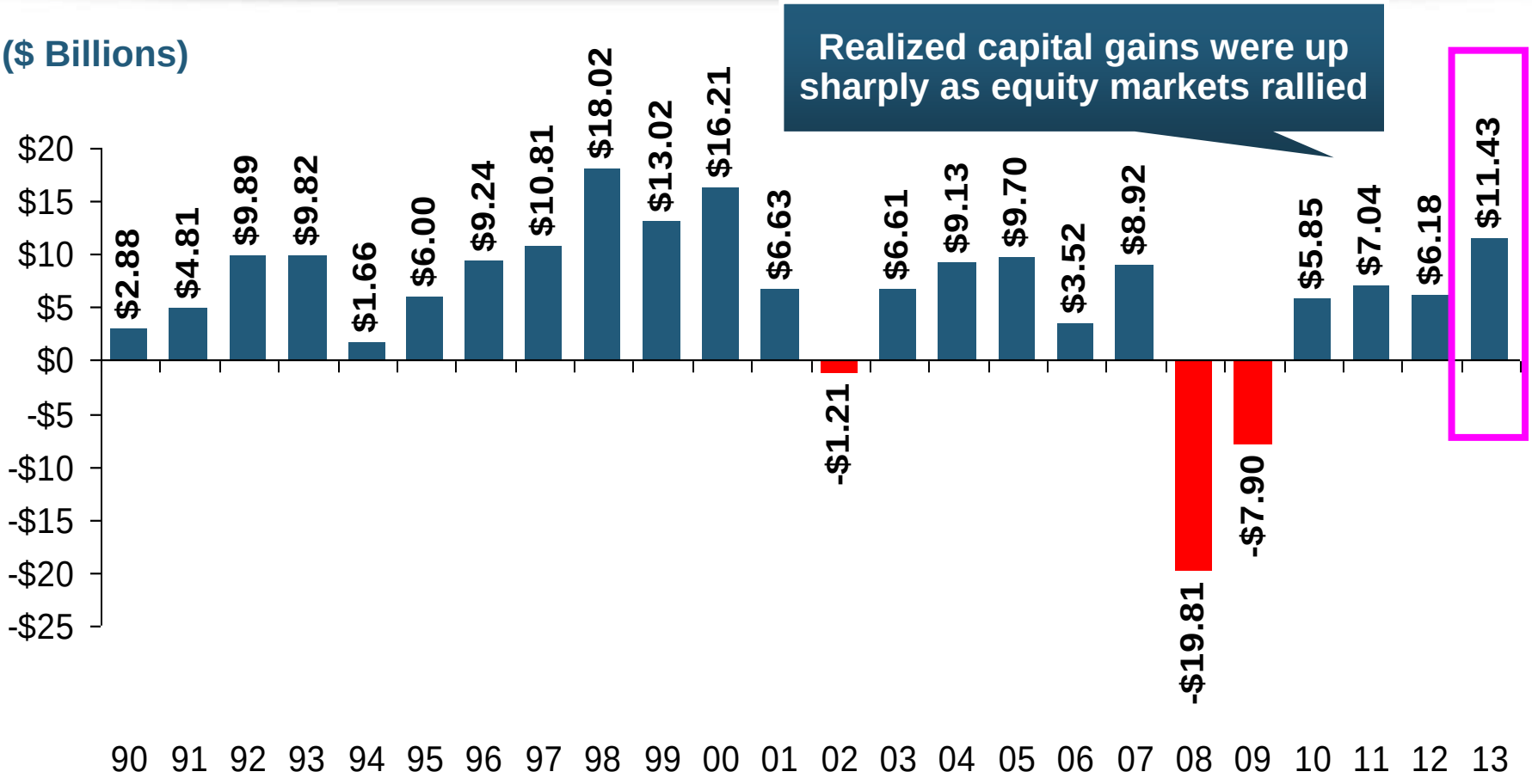
Investment Income Fell in 2012 and 2013 Due to Persistently Low Interest Rates, Putting Additional Pressure on (Re) Insurance Pricing

[1] Investment gains consist primarily of interest and stock dividends...

Sources: ISO; Insurance Information Institute.

P/C Insurer Net Realized Capital Gains/Losses, 1990-2013

INSURANCE INFORMATION INSTITUTE

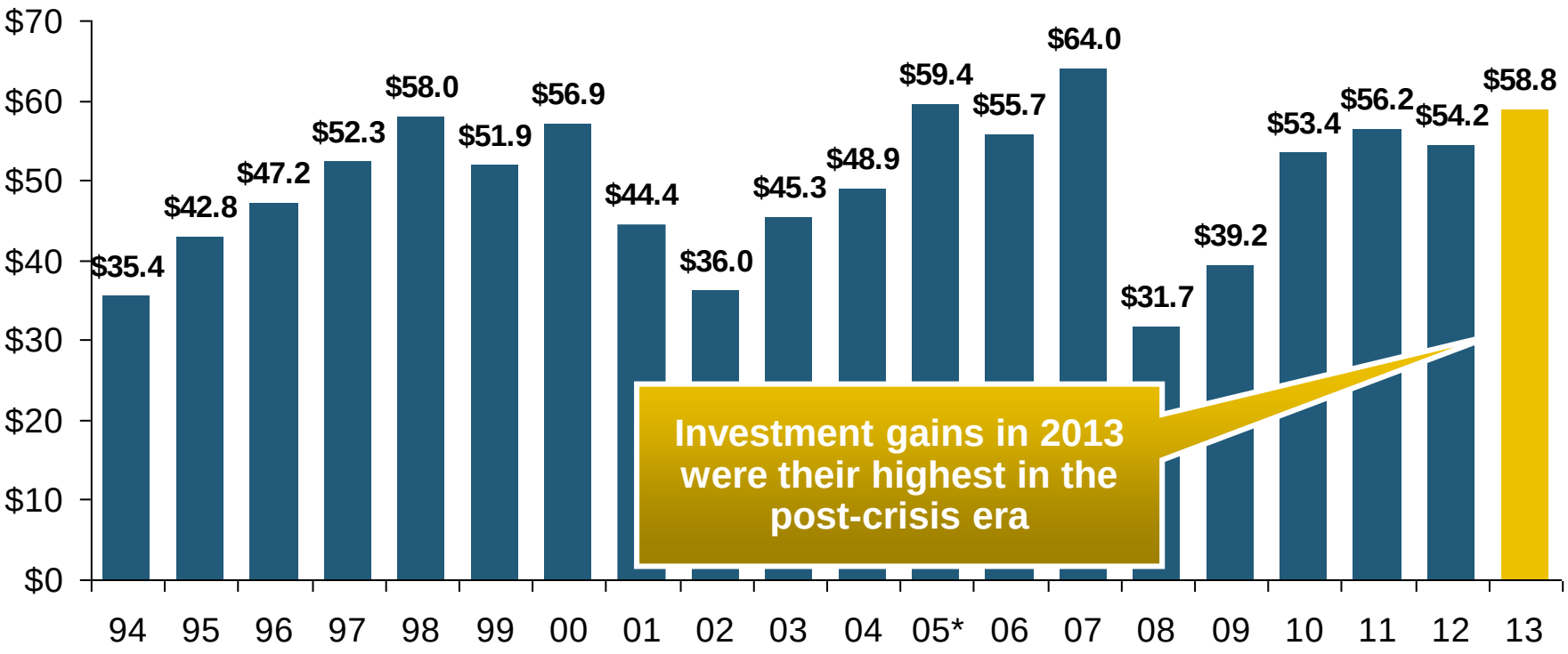


Insurers Posted Net Realized Capital Gains in 2010 - 2013 Following Two Years of Realized Losses During the Financial Crisis. Realized Capital Losses Were the Primary Cause of 2008/2009's Large Drop in Profits and ROE

Sources: A.M. Best, ISO, Insurance Information Institute.

Property/Casualty Insurance Industry Investment Gain: 1994–2013[1]

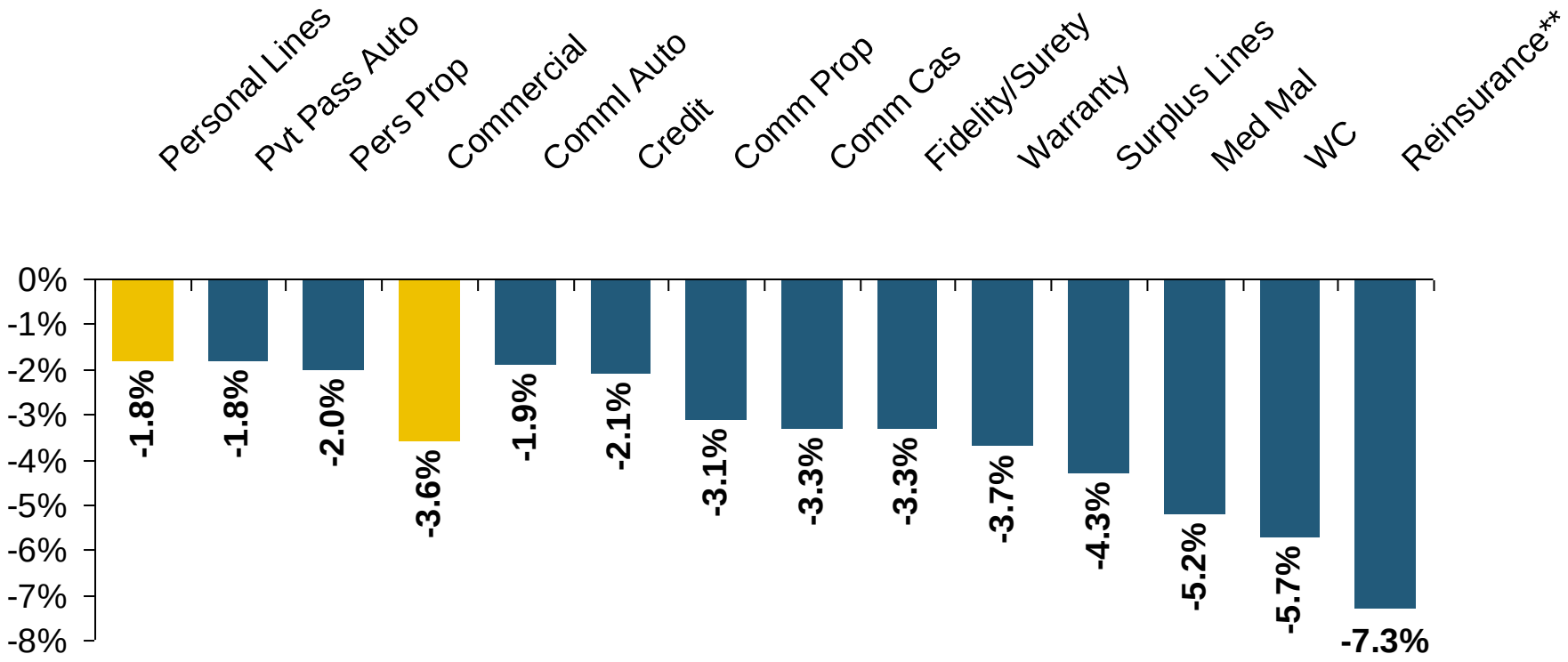
($ Billions)



Investment Income Continued to Fall in 2013 Due to Low Interest Rates but Realized Investment Gains Were Up Sharply; The Financial Crisis Caused Investment Gains to Fall by 50% in 2008

[1] Investment gains consist primarily of interest, stock dividends and realized capital gains and losses.
* 2005 figure includes special one-time dividend of $3.2B;
Sources: ISO; Insurance Information Institute.

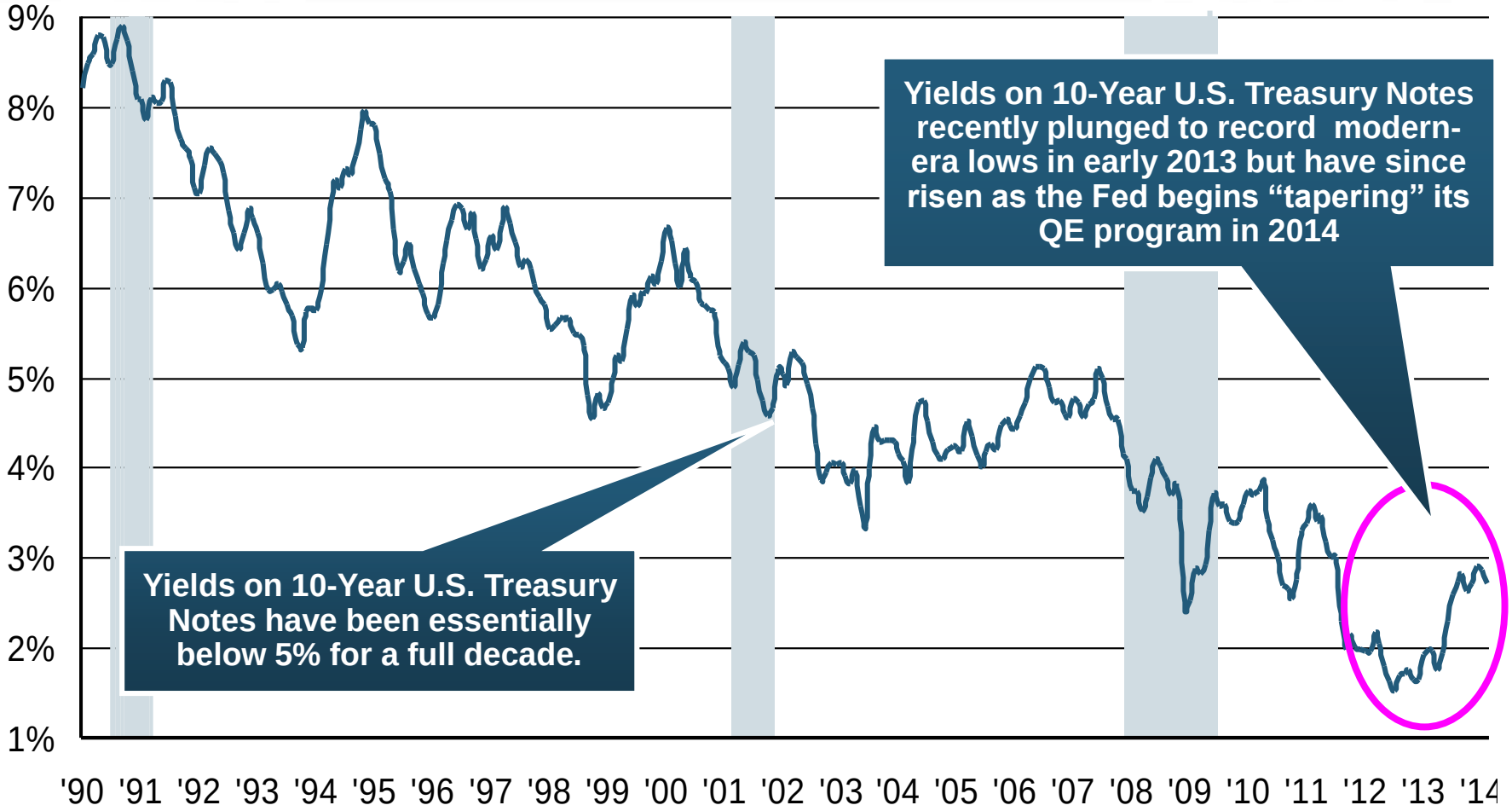
Reduction in Combined Ratio Necessary to Offset 1% Decline in Investment Yield to Maintain Constant ROE, by Line*



Lower Investment Earnings Place a Greater Burden on Underwriting and Pricing Discipline

*Based on 2008 Invested Assets and Earned Premiums
**US domestic reinsurance only
Source: A.M. Best; Insurance Information Institute.

U.S. 10-Year Treasury Note Yields: A Long Downward Trend, 1990–2014*

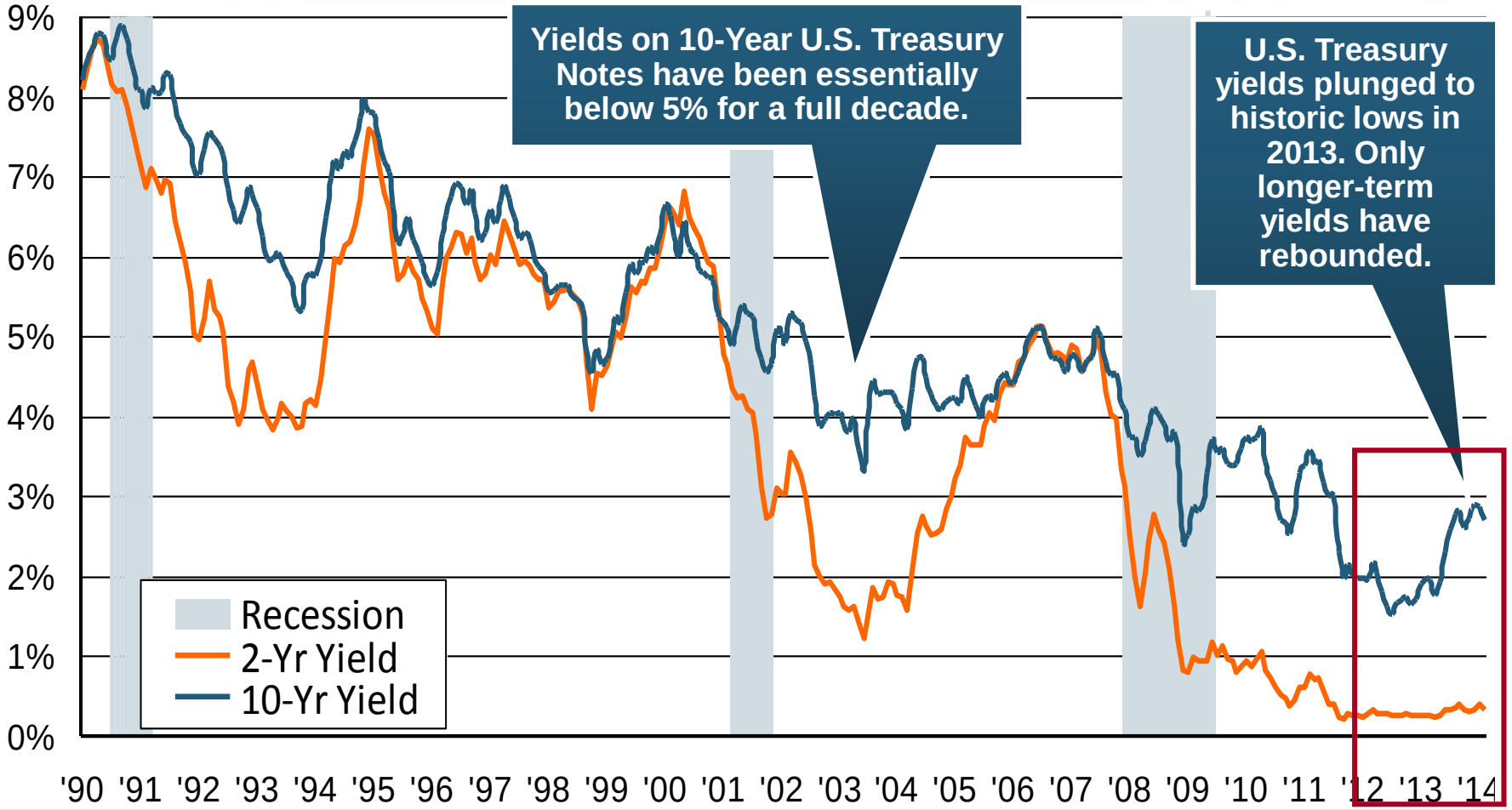


Since roughly 80% of P/C bond/cash investments are in 10-year or shorter durations, most P/C insurer portfolios will have low-yielding bonds for years to come.

*Monthly, through February 2014. Note: Recessions indicated by gray shaded columns.

Sources: Federal Reserve Bank at http://www.federalreserve.gov/releases/h15/data.htm.
National Bureau of Economic Research (recession dates); Insurance Information Institutes.

U.S. Treasury Security Yields: A Long Downward Trend, 1990–2014*

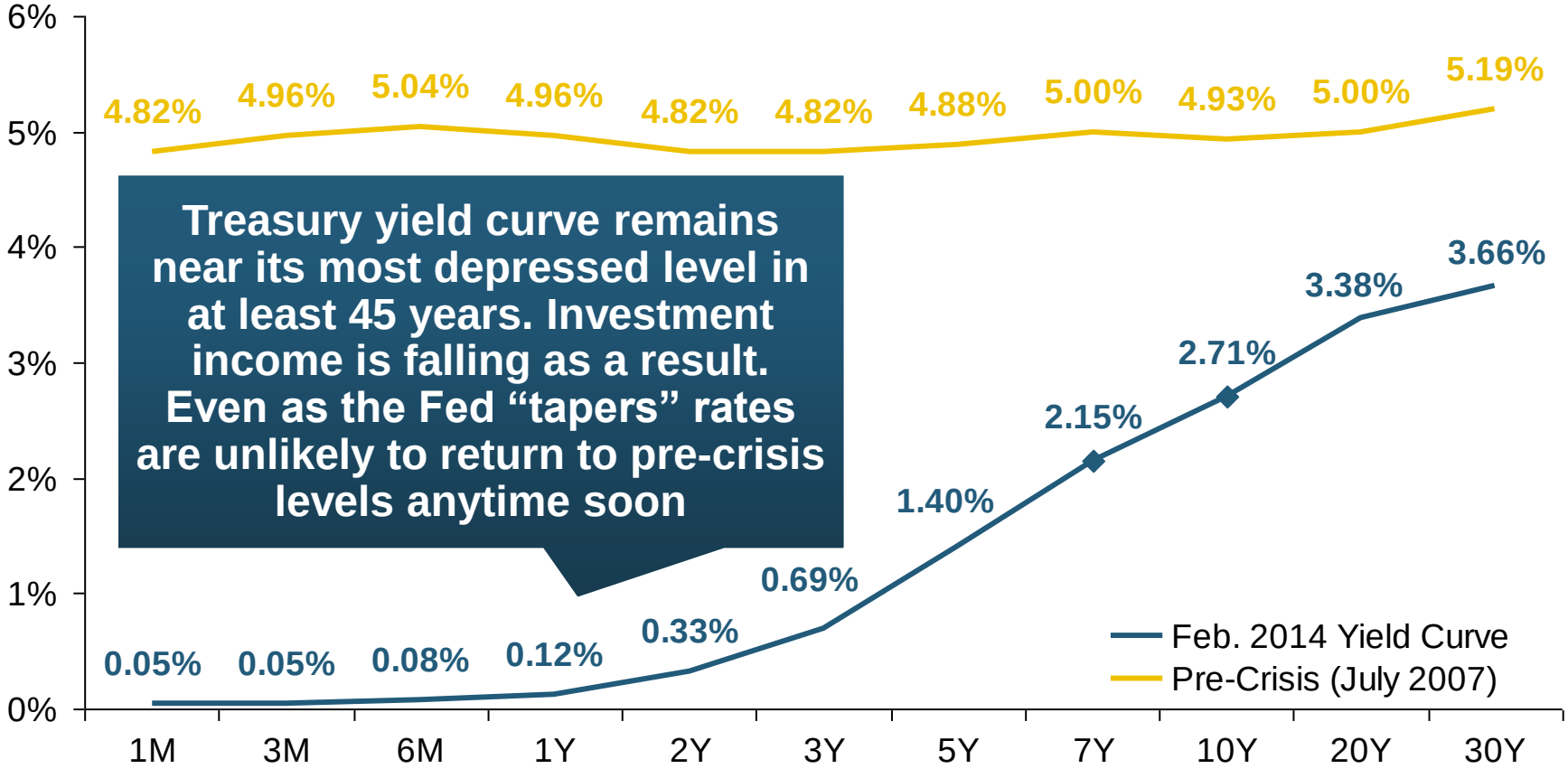


Since roughly 80% of P/C bond/cash investments are in 10-year or shorter durations, most P/C insurer portfolios will have low-yielding bonds for years to come.

*Monthly, constant maturity, nominal rates, through February 2014.

Sources: Federal Reserve Bank at http://www.federalreserve.gov/releases/h15/data.htm.
National Bureau of Economic Research (recession dates); Insurance Information Institute.

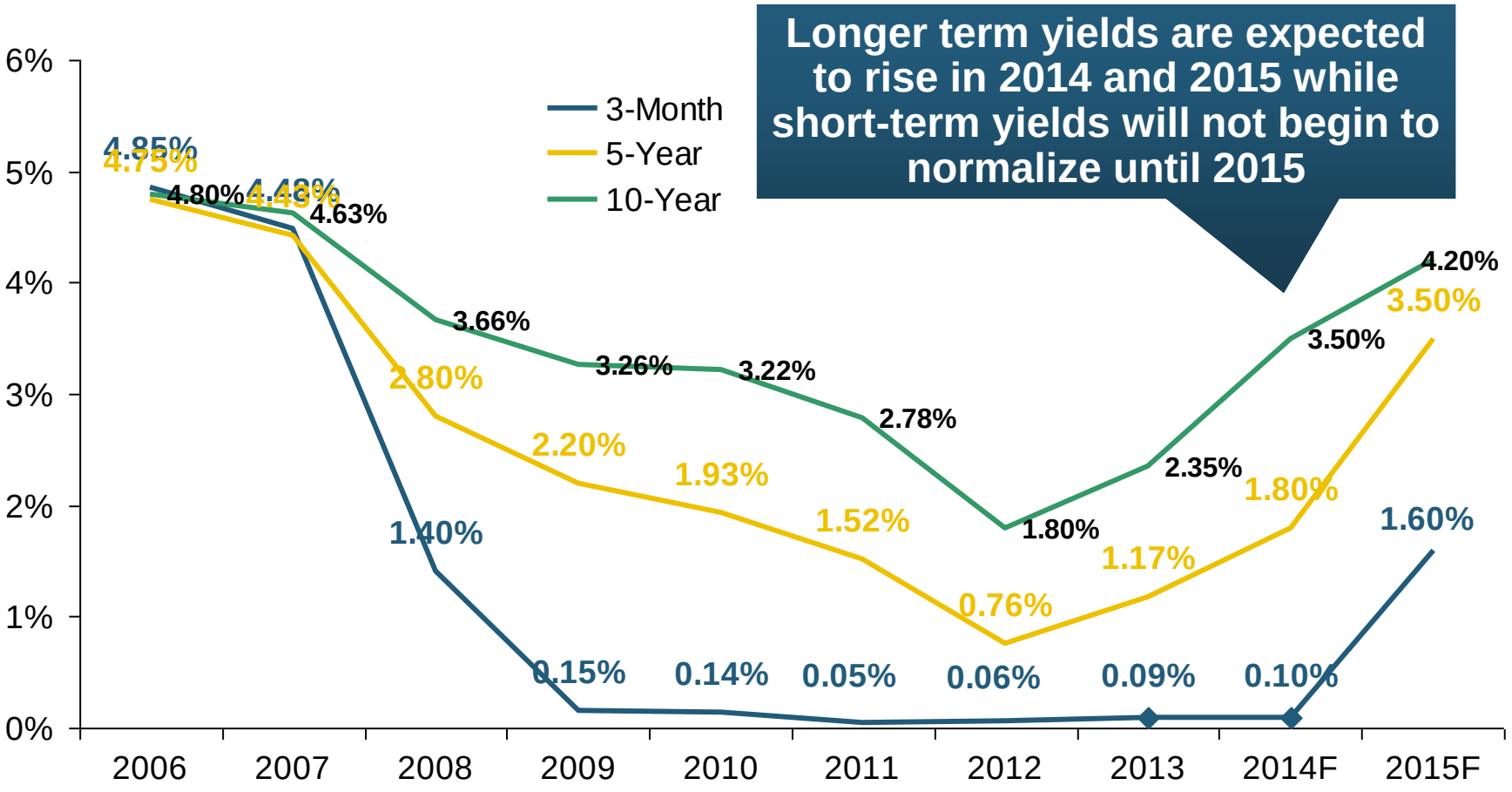
Treasury Yield Curves: Pre-Crisis (July 2007) vs. Feb. 2014



The Fed Is Actively Signaling that it Is Determined to Keep Rates Low Until Unemployment Drops Below 6.5% or Until Inflation Expectations Exceed 2.5%; Low Rates Add to Pricing Pressure for Insurers.

Source: Federal Reserve Board of Governors; Insurance Information Institute.

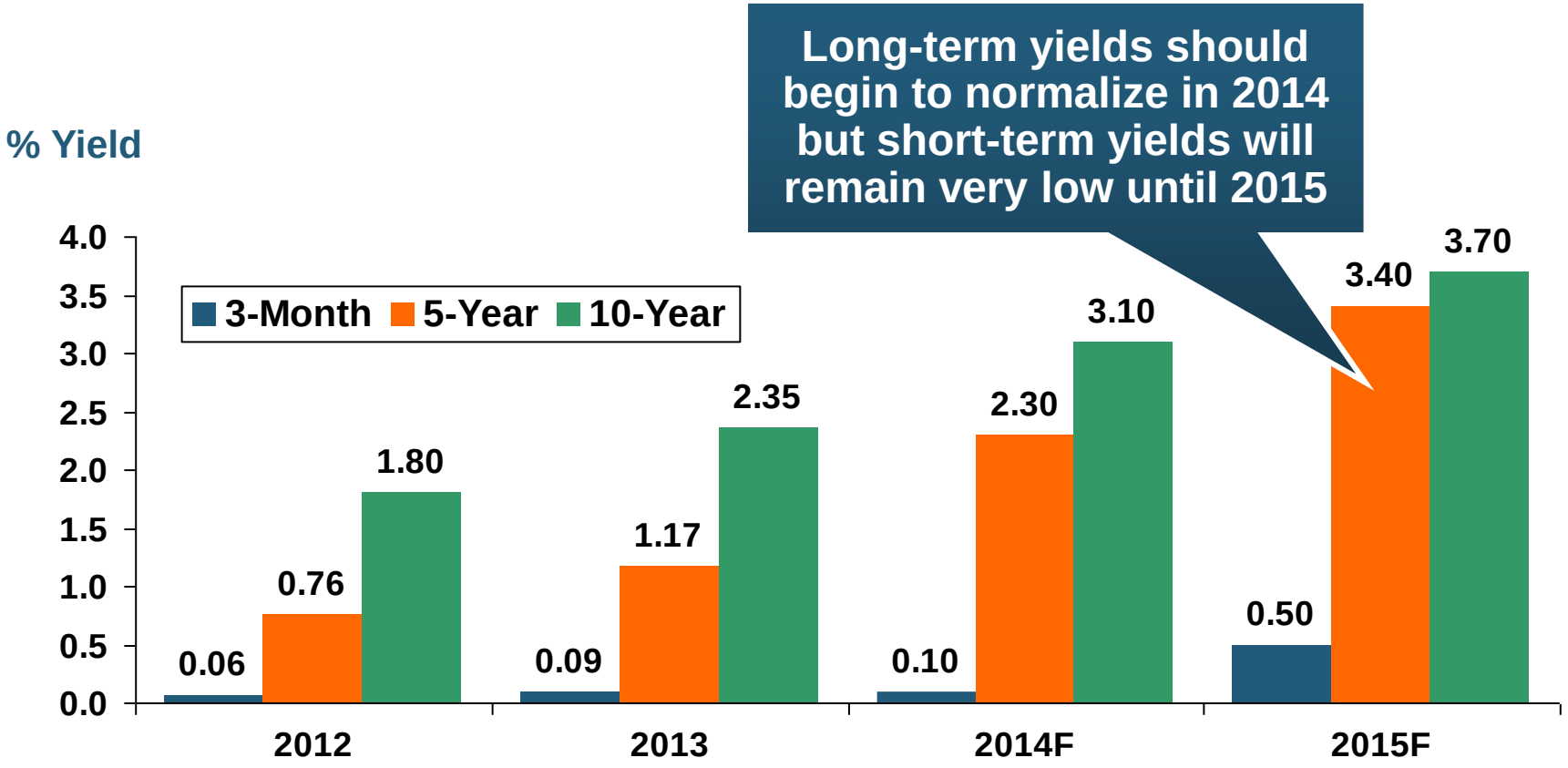
Treasury Yield Curves: Pre-Crisis (July 2007) vs. Feb. 2014



Higher longer-term yields will help insurers but short term yields are expected to lag behind

Source: Federal Reserve Board of Governors (2006-2013), Swiss Re (2014-2015); Insurance Information Institute.

Outlook for U.S. Treasury Bond Yields Through 2015



Longer-tail lines like MPL and workers comp will benefit the most from the normalization of yields

Source: Federal Reserve Board of Governors (2012-2013), Blue Economic Forecasts (2014-2015 3-month and 10-yr; 4/14) Swiss Re (2014-2015, 5-yr yield; 4/14); Insurance Information Institute.

Average Maturity of Bonds Held by US P/C Insurers, 2006—2011*

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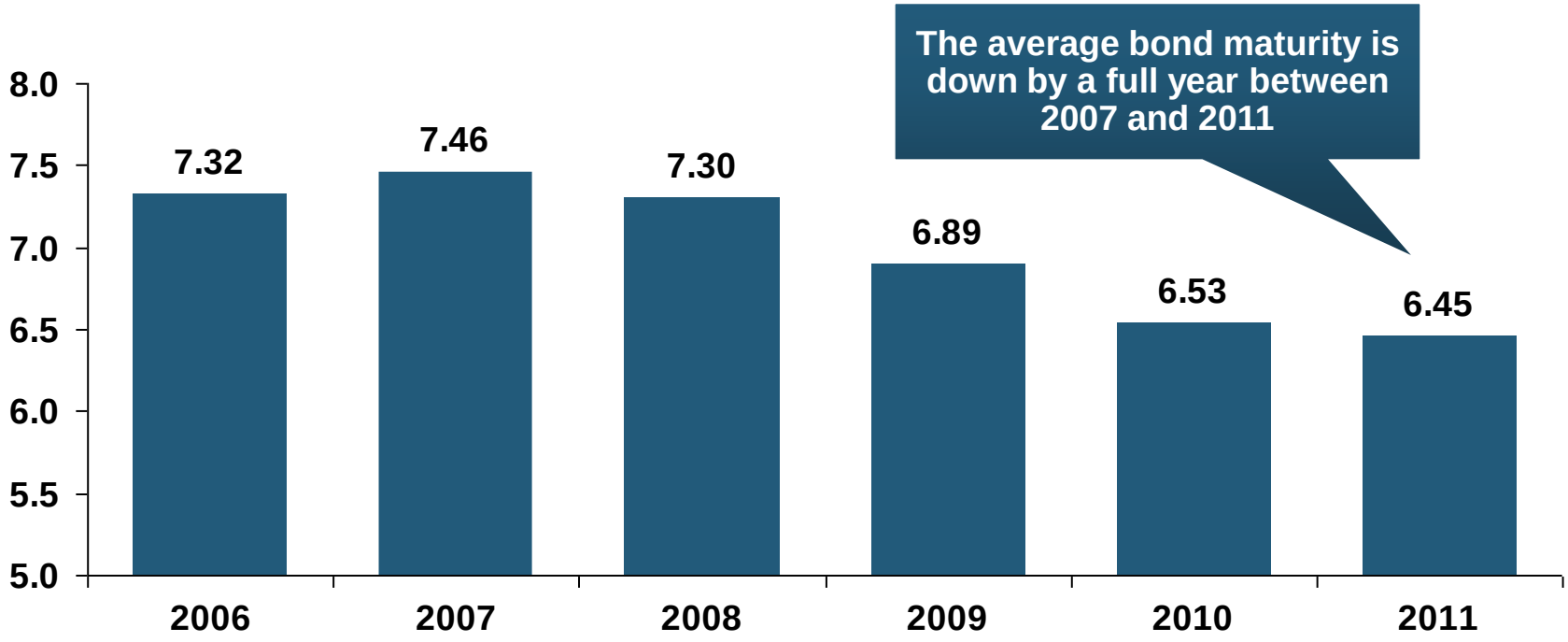
Average Maturity (Years)

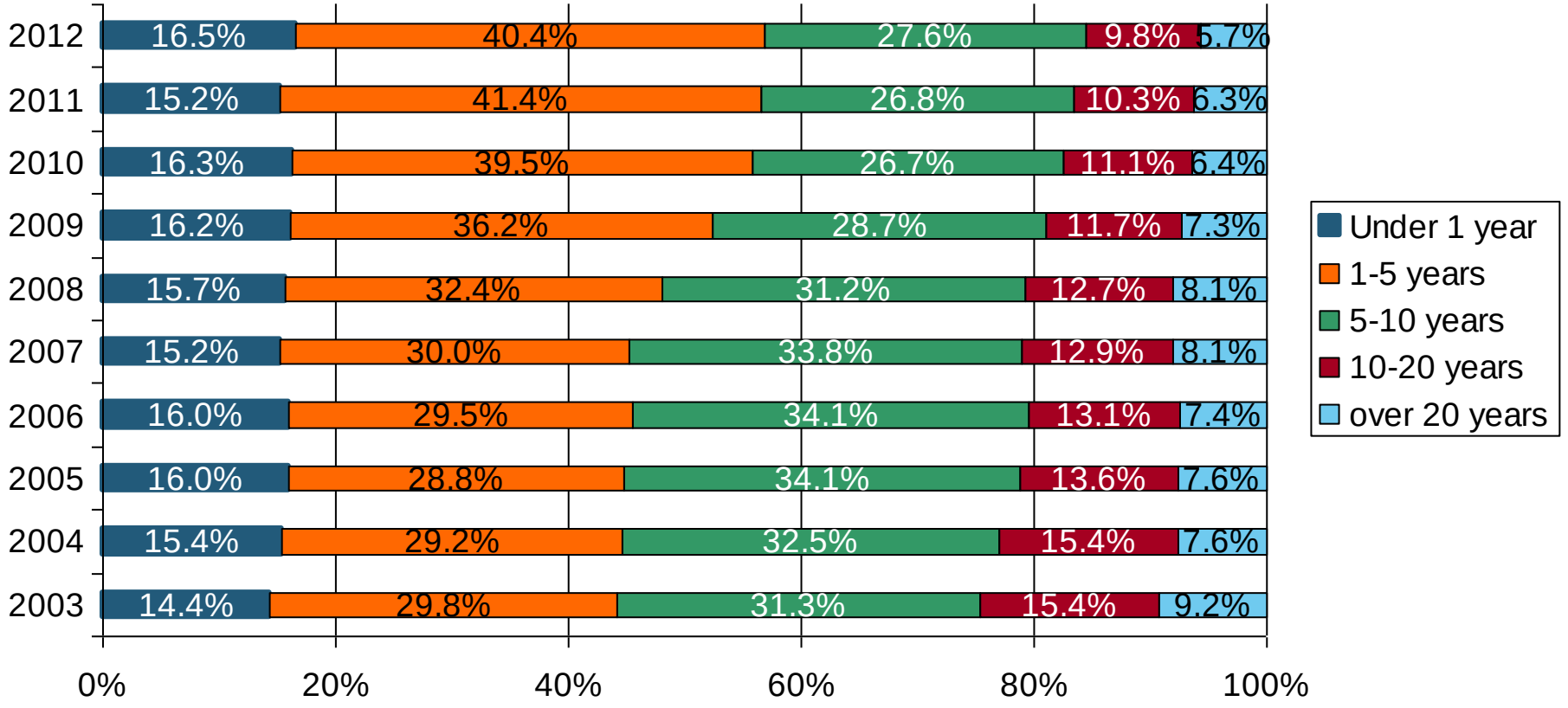


Falling Average Maturity (and Duration) of the P/C Industry's Bond Portfolio is Contributing to the Drop in Investment Income Along With Lower Yields

*Year-end figures. Latest available.

Sources: Insurance Information Institute calculations based on A.M. Best data.

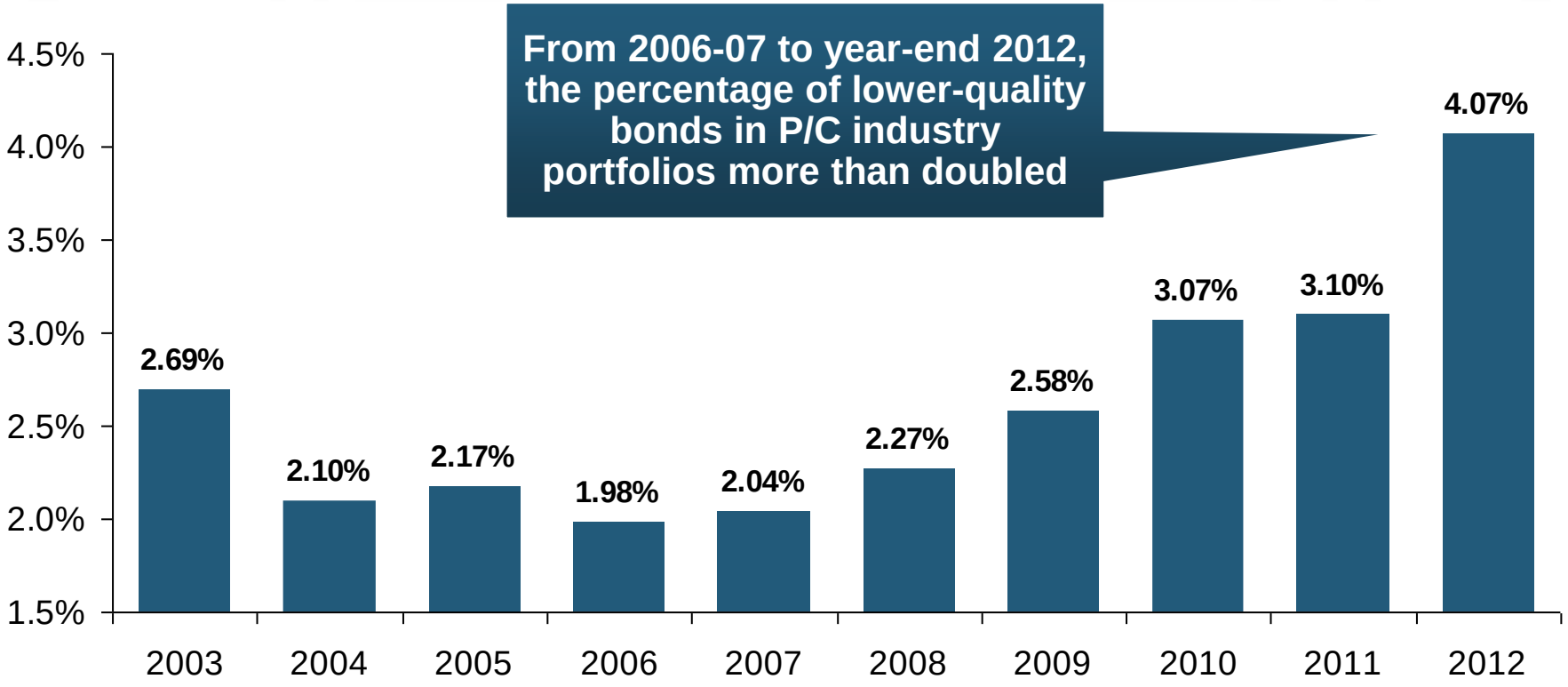
Distribution of Bond Maturities, P/C Insurance Industry, 2003-2012



The main shift over these years has been from bonds with longer maturities to bonds with shorter maturities. The industry first trimmed its holdings of over-10-year bonds (from 24.6% in 2003 to 15.5% in 2012) and then trimmed bonds in the 5-10-year category (from 31.3% in 2003 to 27.6% in 2012) . Falling average maturity of the P/C industry's bond portfolio is contributing to a drop in investment income along with lower yields.

Sources: SNL Financial; Insurance Information Institute.

Bonds Rated NAIC Quality Category 3-6 as a Percent of Total Bonds, 2003–2012



There are many ways to capture higher yields on bond portfolios. One is to accept greater risk, as measured by NAIC bond ratings. The ratings range from 1 to 6, with the highest quality rated 1. Even in 2012, over 95% of the industry's bonds were rated 1 or 2.

Sources: SNL Financial; Insurance Information Institute.

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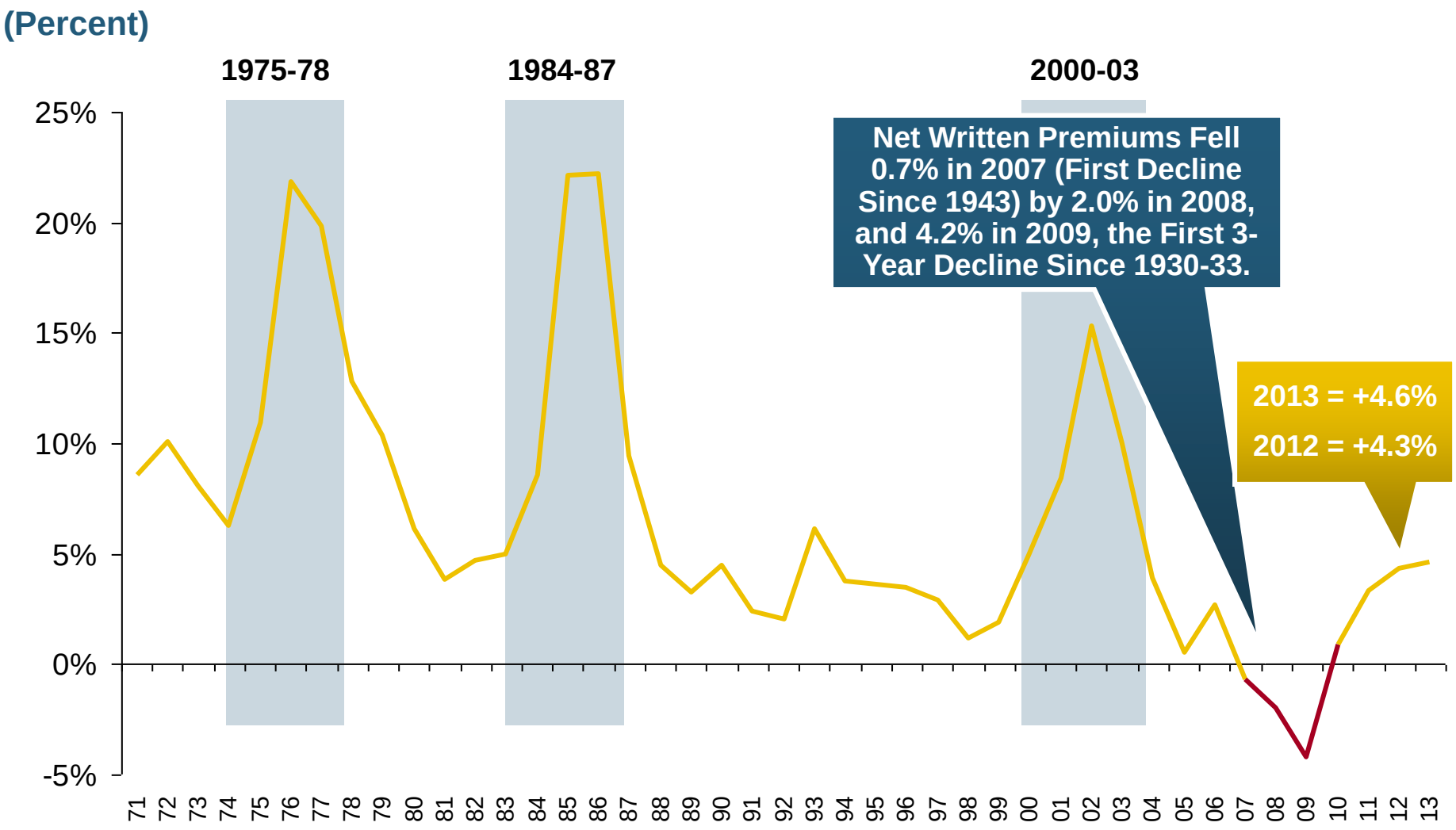
PRICING DISCIPLINE: MIXED PICTURE

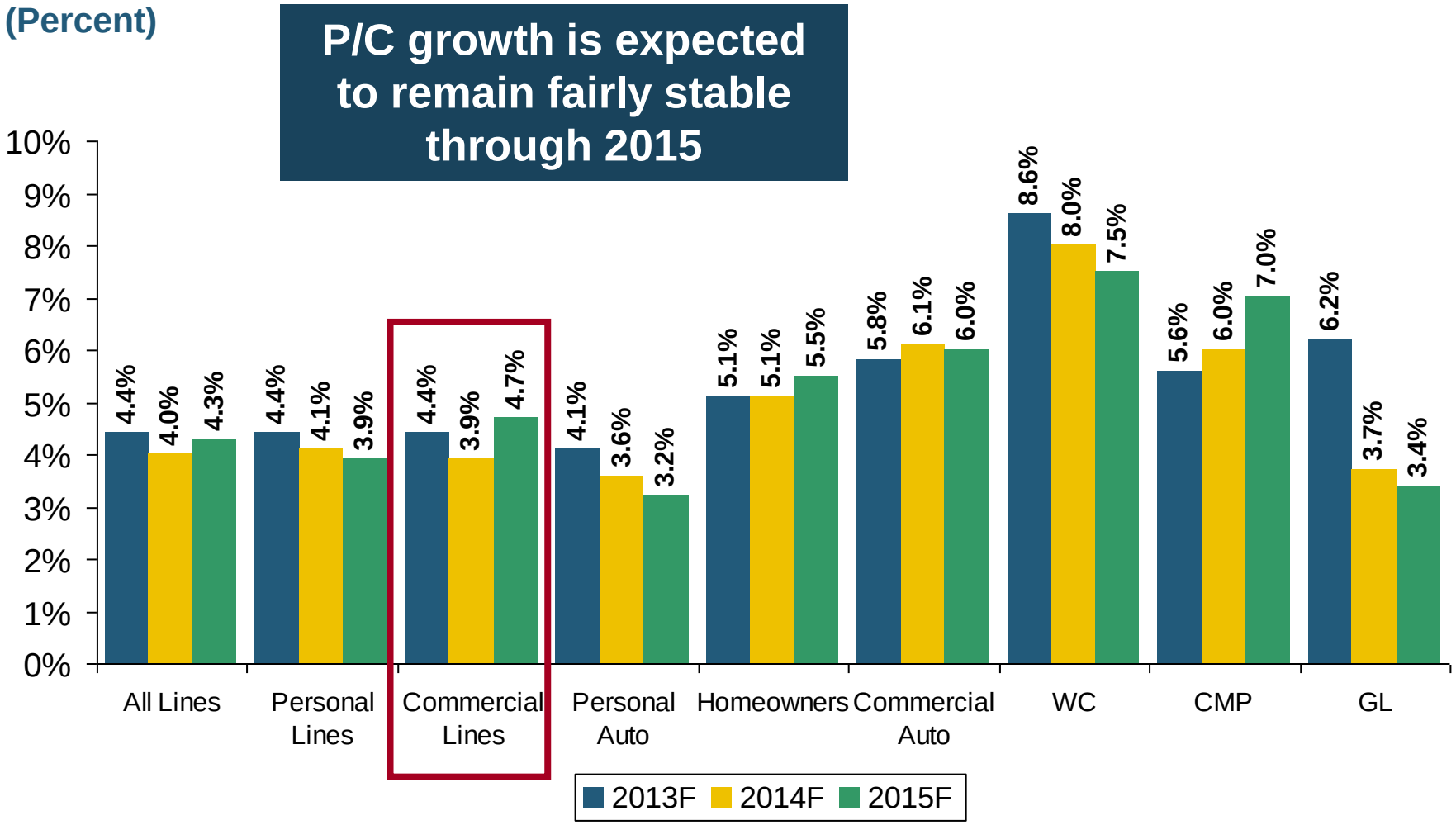
Commercial Renewals Remain Generally Positive for Now

Net Premium Growth: Annual Change, 1971—2013



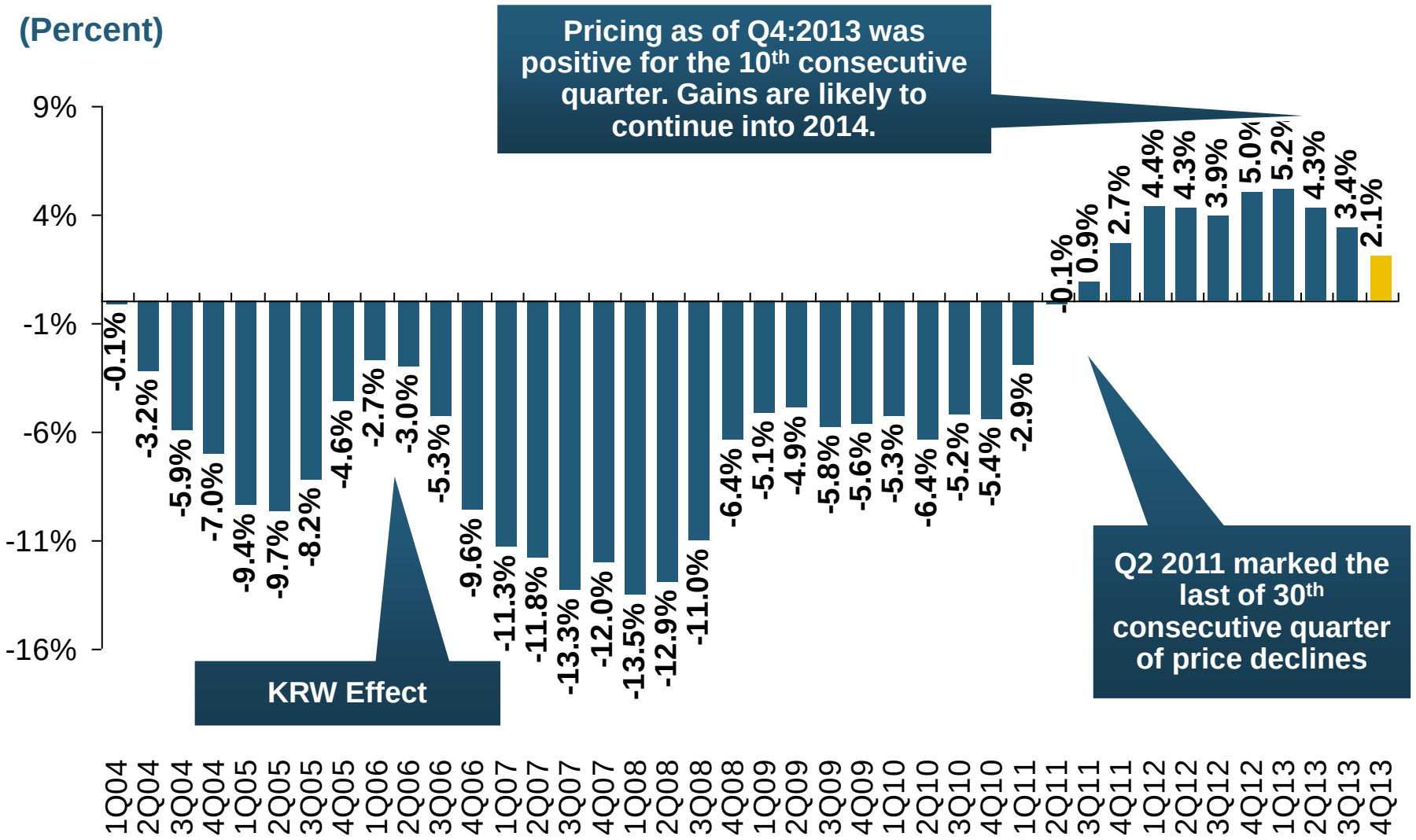
Shaded areas denote "hard market" periods
Sources: A.M. Best (historical and forecast), ISO, Insurance Information Institute.

Growth in Direct Written Premium by Line, 2013-2015F*



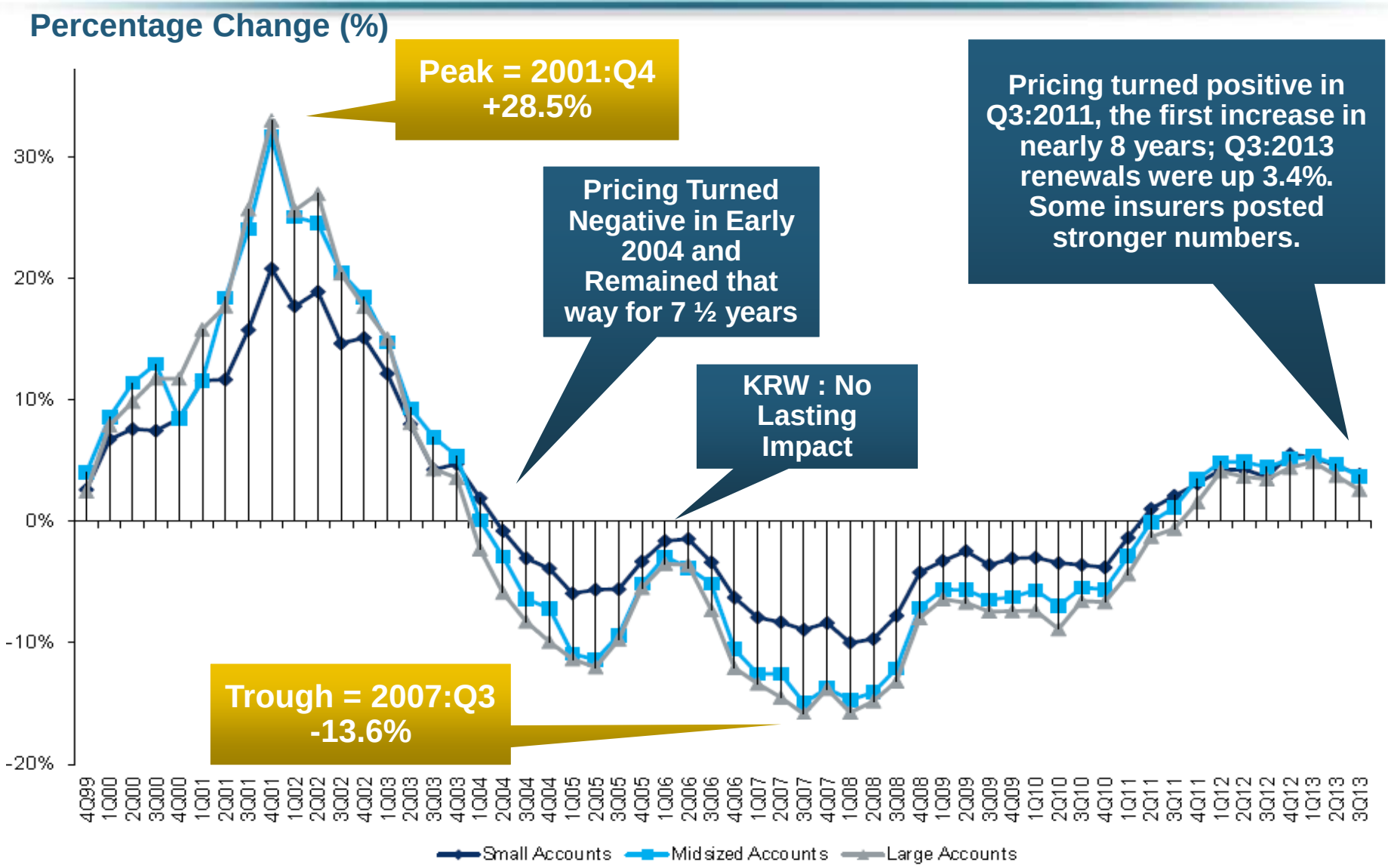
Source: Conning.

Average Commercial Rate Change, All Lines, (1Q:2004–4Q:2013)



Note: CIAB data cited here are based on a survey. Rate changes earned by individual insurers can and do vary, potentially substantially.
Source: Council of Insurance Agents & Brokers; Insurance Information Institute

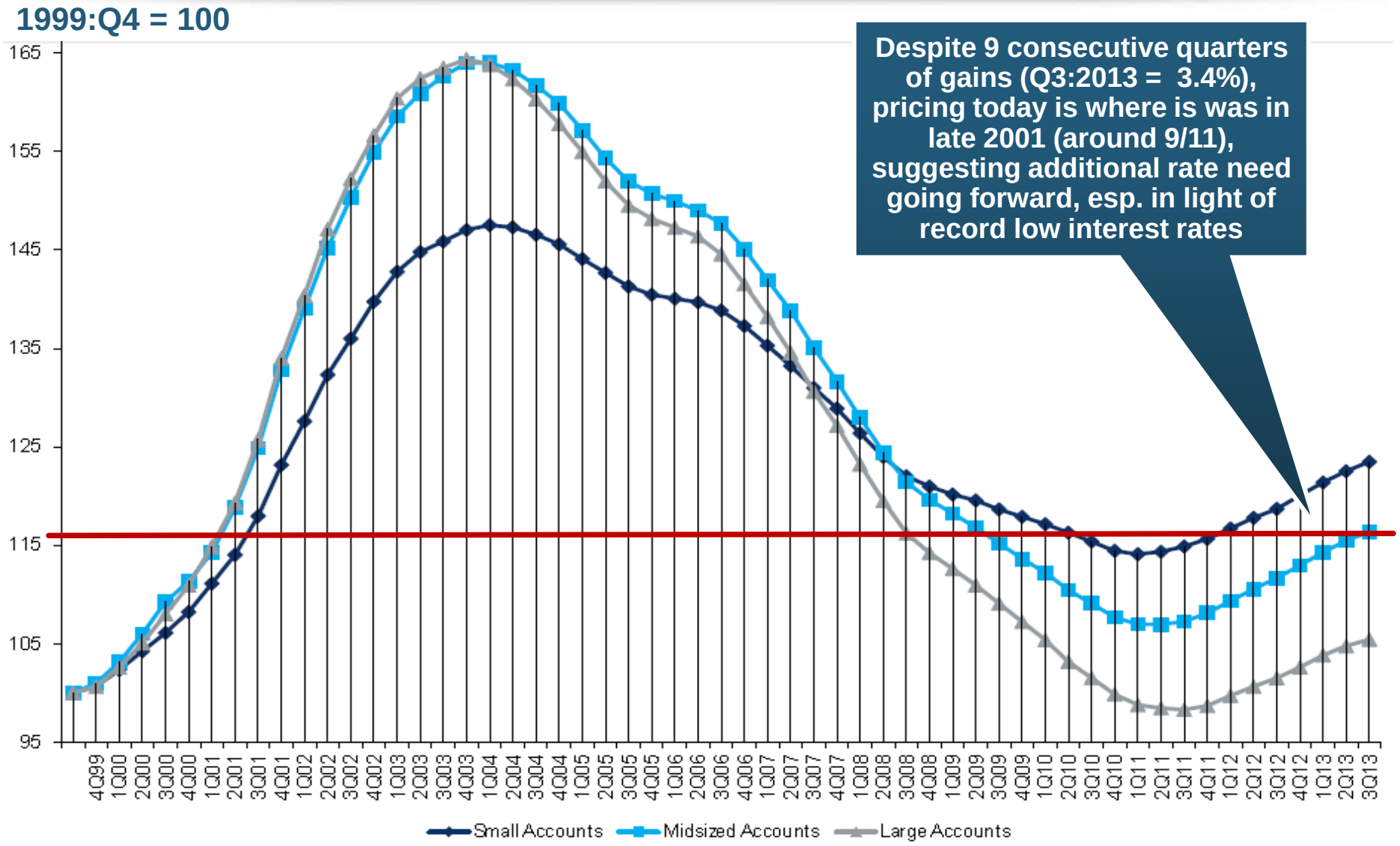
Change in Commercial Rate Renewals, by Account Size: 1999:Q4 to 2013:Q3



Note: CIAB data cited here are based on a survey. Rate changes earned by individual insurers can and do vary, potentially substantially.
Source: Council of Insurance Agents and Brokers; Barclay's Capital; Insurance Information Institute.

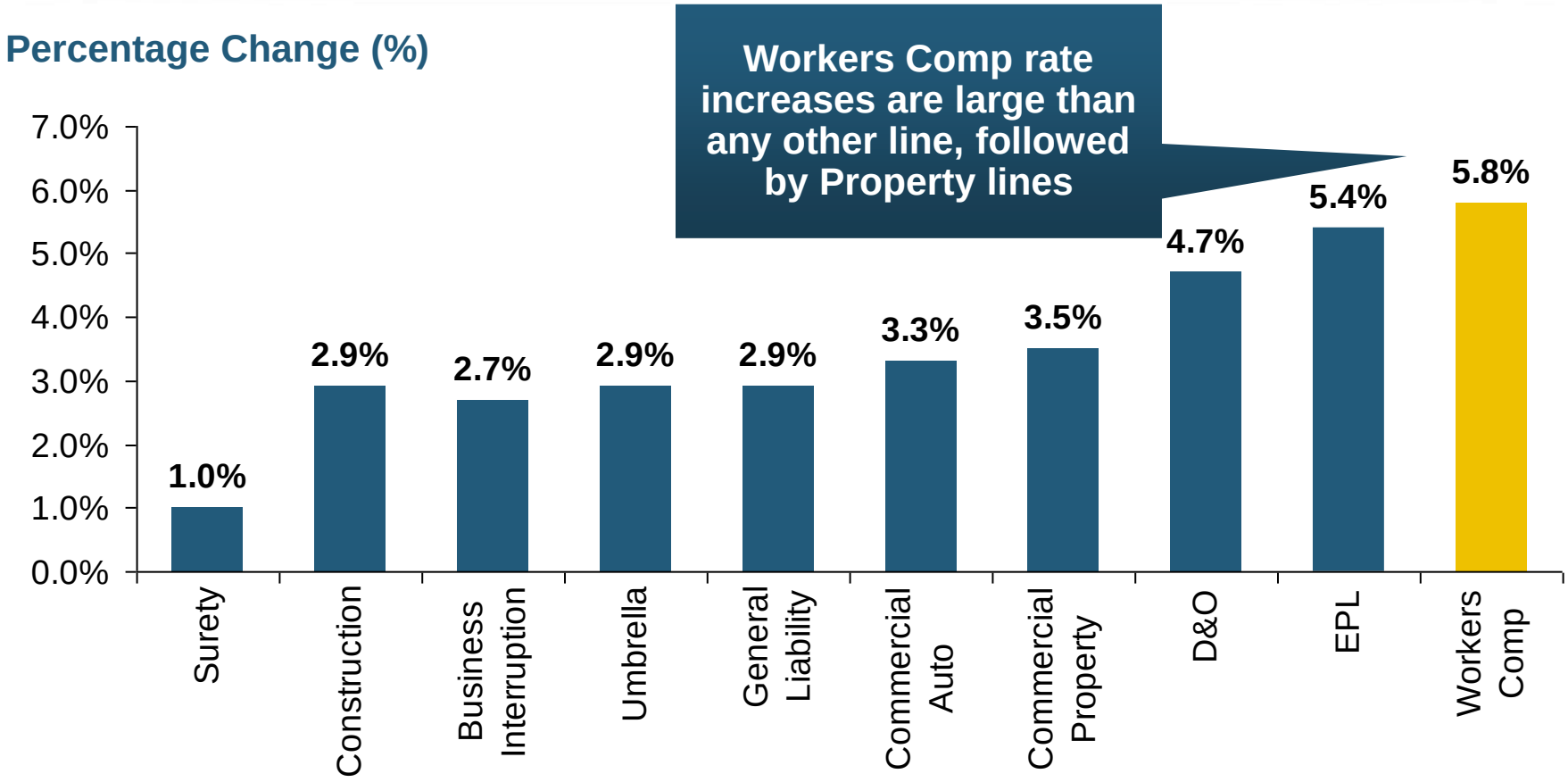
Cumulative Qtrly. Commercial Rate Changes, by Account Size: 1999:Q4 to 2013:Q3

INSURANCE INFORMATION INSTITUTE



Note: CIAB data cited here are based on a survey. Rate changes earned by individual insurers can and do vary, potentially substantially.
Source: Council of Insurance Agents and Brokers; Barclay's Capital; Insurance Information Institute.

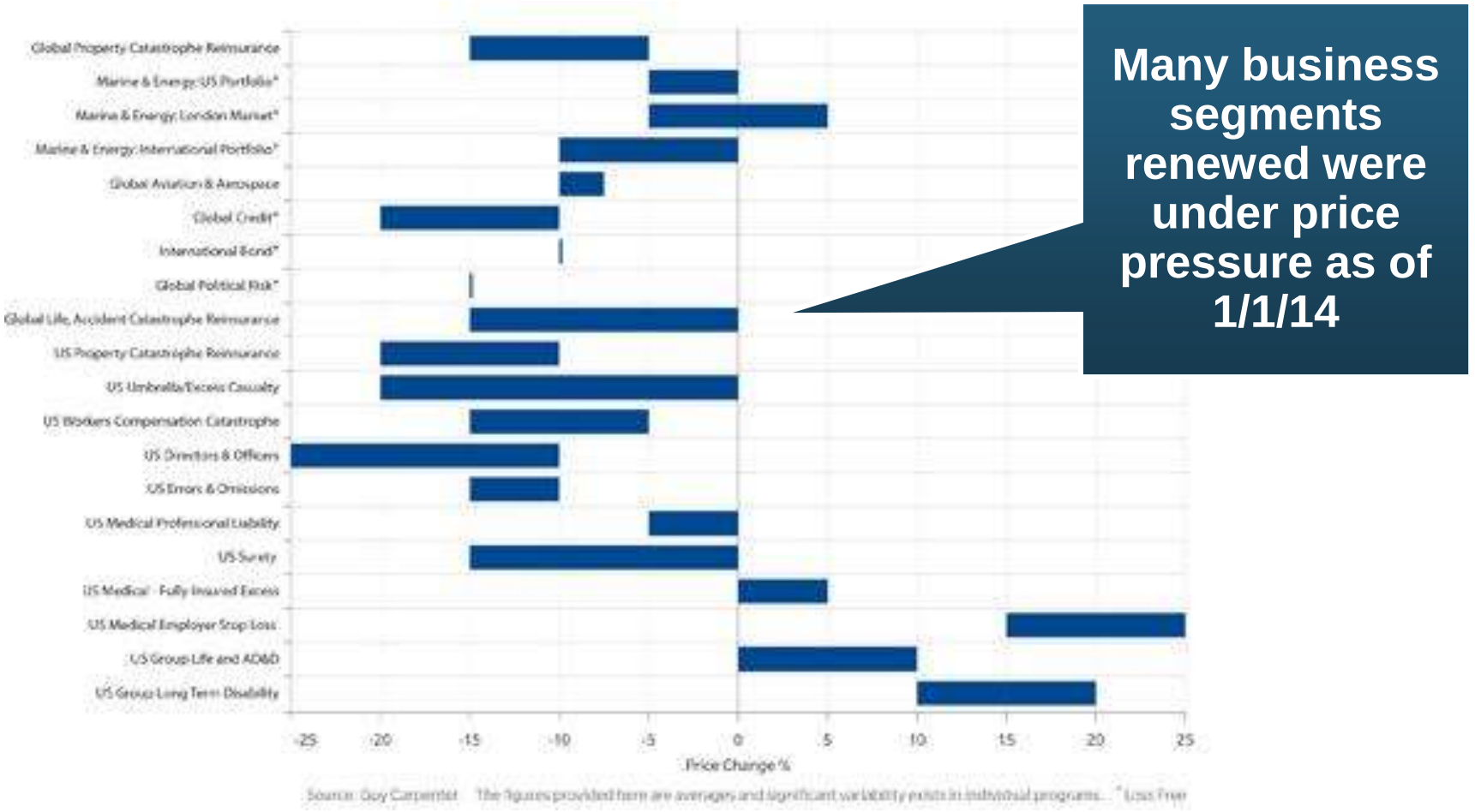
Change in Commercial Rate Renewals, by Line: 2013:Q3



Major Commercial Lines Renewed Uniformly Upward in Q3:2013 for the 9th Consecutive Quarter; Property Lines & Workers Comp Leading the Way; Cat Losses and Low Interest Rates Provide Momentum Going Forward

Note: CIAB data cited here are based on a survey. Rate changes earned by individual insurers can and do vary, potentially substantially.
Source: Council of Insurance Agents and Brokers; Insurance Information Institute.

Rate Movements by Business Segment as of January 1, 2014

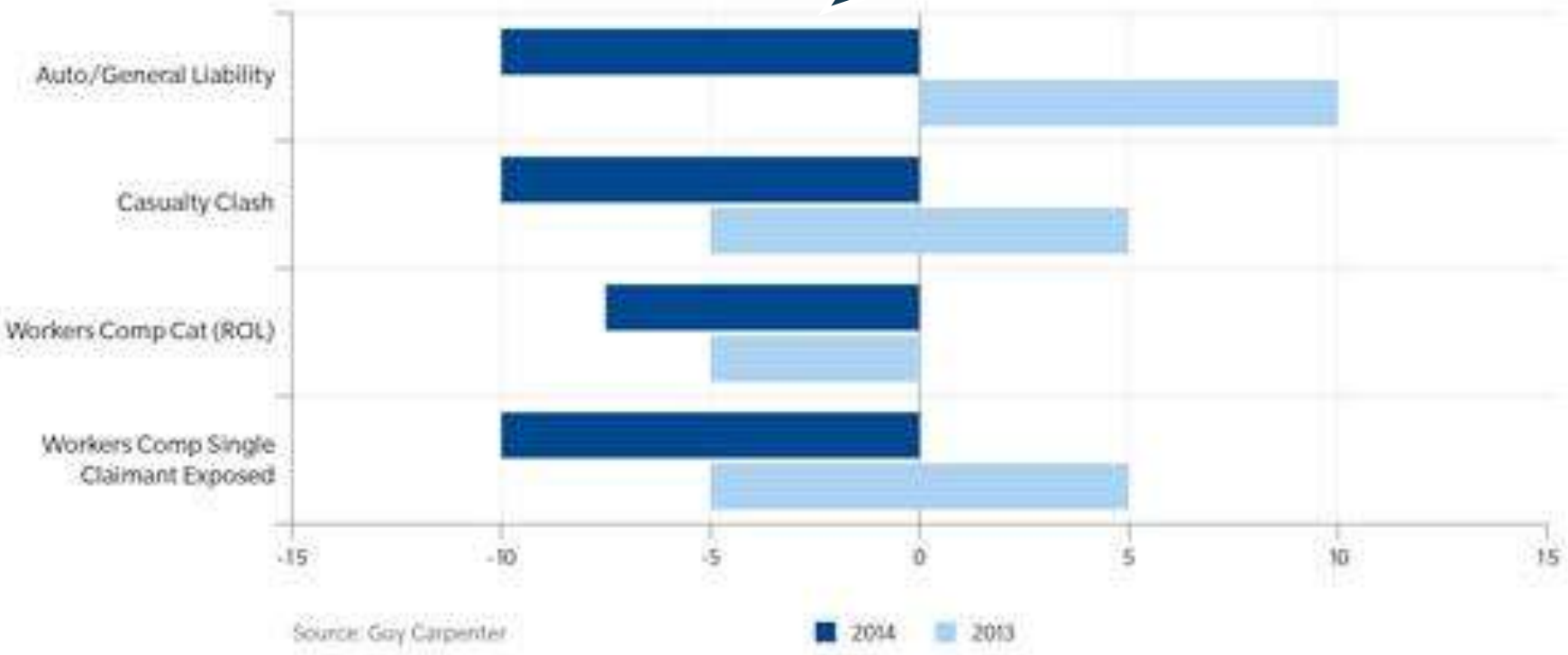


Many business segments renewed were under price pressure as of 1/1/14

Sources: Guy Carpenter; Insurance Information Institute .

Casualty: Typical Excess of Loss Rate Changes as of Jan. 1, 2014

Casualty excess of loss renewals turned generally negative as of 1/1/14



Sources: Guy Carpenter; Insurance Information Institute .

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New Waves of Regulations

2008 - Present
Global Crisis and Regulatory Response

The Global Financial Crisis: The Pendulum Swings Again: Dodd-Frank & Systemic Risk

- **Dodd-Frank Act of 2010: The implosion of the housing bubble and virtual collapse of the US banking system, the seizure of credit markets and massive government bailouts of US financial institutions led to calls for sweeping regulatory reforms of the financial industry**
- **Limiting Systemic Risk is at the Core of Dodd-Frank**
- **Designation as a Systemically Important Financial Institutional (SIFI) Will Result in Greater Regulatory Scrutiny and Heightened Capital Requirements**
- **Dodd-Frank Established Several Entities Impacting Insurers**
  - **Federal Insurance Office**
  - **Financial Stability Oversight Council**
  - **Office of Financial Research**
  - **Consumer Financial Protection Bureau**

The Global Financial Crisis: The Pendulum Swings Again: Dodd-Frank & Systemic Risk

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- **Insurers—as Non-Bank Financial Institutions—Have Escaped Some, though Not All of the Most Draconian Provision of Dodd-Frank**
  - **In particular, small number of large insurers will (are) receiving a designations as Systemically Important Financial Institutions (SIFIs)**
- **Insurers Generally Reject the Notion that Insurance Is Systemically Risky (or that any Individual Insurer is Systemically Important)**
- **Such a Designation Makes the Fed the Penultimate Regulator**
- **To Date: AIG, Prudential Have Been Designated as non-bank SIFIs by the FSOC**
  - **MetLife is still under evaluation**
- **Fed Reserve Seems Open to Developing a Tailored Capital Requirement Approach for Insurers**
  - **Conflicting language in the DFA make this somewhat difficult**
  - **SIFIs may need Fed approval to repurchase shares on increase dividend**

Global Financial Crises & Global Systemic Risk

- **The Global Financial Crisis Prompted the G-20 Leaders to Request that the Financial Stability Board (FSB) Assess the Systemic Risks Associated with SIFIs, Global-SIFIs in Particular**
- **In July 2013, the FSB Endorsed the International Association of Insurance Supervisors Methodology for Identifying Globally Systemically Important Insurers (G-SIIs)**
- **For Each G-SII, the Following Will Be Required:**

  (i) Recovery and resolution plans

  (ii) Enhanced group-wide supervision

  (iii) Higher loss absorbency (HLA) requirements

- **G-SIIs as Designated by the FSB as of July 2013:**

Allianz SE	**AIG**	**Assicurazioni Generali**
Aviva	**Axa**	**MetLife**
Ping An	**Prudential Financial**	**Prudential plc**

Global Financial Crises & Global Systemic Risk: Key Dates

Implementation Date	Action
July 2013	Designation of G-SIIs (annual updates thereafter beginning Nov. 2014)
July 2014	FSB to make a decision on the G-SII status of, and appropriate risk mitigating measures for major reinsurers
By G-20 Summit 2014	IAIS to develop backstop capital requirements to apply to all group activities, incl. non-ins. subs.
End 2015	IAIS to develop HLA requirements that will apply to G-SIIs staring in 2019
January 2019	G-SIIs to apply HLA requirements

Sources: Financial Stability Board, *"Globally Systemically Important Insurers (G-SIIs) and the Policy Measures that Will Apply to Them,"* July 18, 2013.

Global Financial Crises & Global Systemic Risk…There's More…

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- **IAIS Also Plans to Develop the First-Ever Risk-Based Global Insurance Capital Standards by 2016**
- **Would be Tested in 2017-2018; Implemented in 2019**
- **Would Be Included as Part of ComFrame and Apply to Internationally Active Insurance Groups (IAIGs): ~50 IAIGs Designations Likely**
- **While Flexibility May Exist within the Standards, Doubts in the US Are Likely to Be Strong**
  - **Concern that the standards may be bank-centric**
  - **Questions as to whether such standards are even needed:**
  - ***"Although US state insurance regulators continue to have doubts about the timing, necessity and complexity of developing a global capital standard given regulatory differences around the globe, we intend to remain fully engaged in the process to ensure that any development augments the strong legal entity capital requirements in the US that have provided proven and tested security for US policyholders and stable insurance markets for consumers and industry." --NAIC President Ben Nelson (P/C 360, Oct. 16, 2013)***

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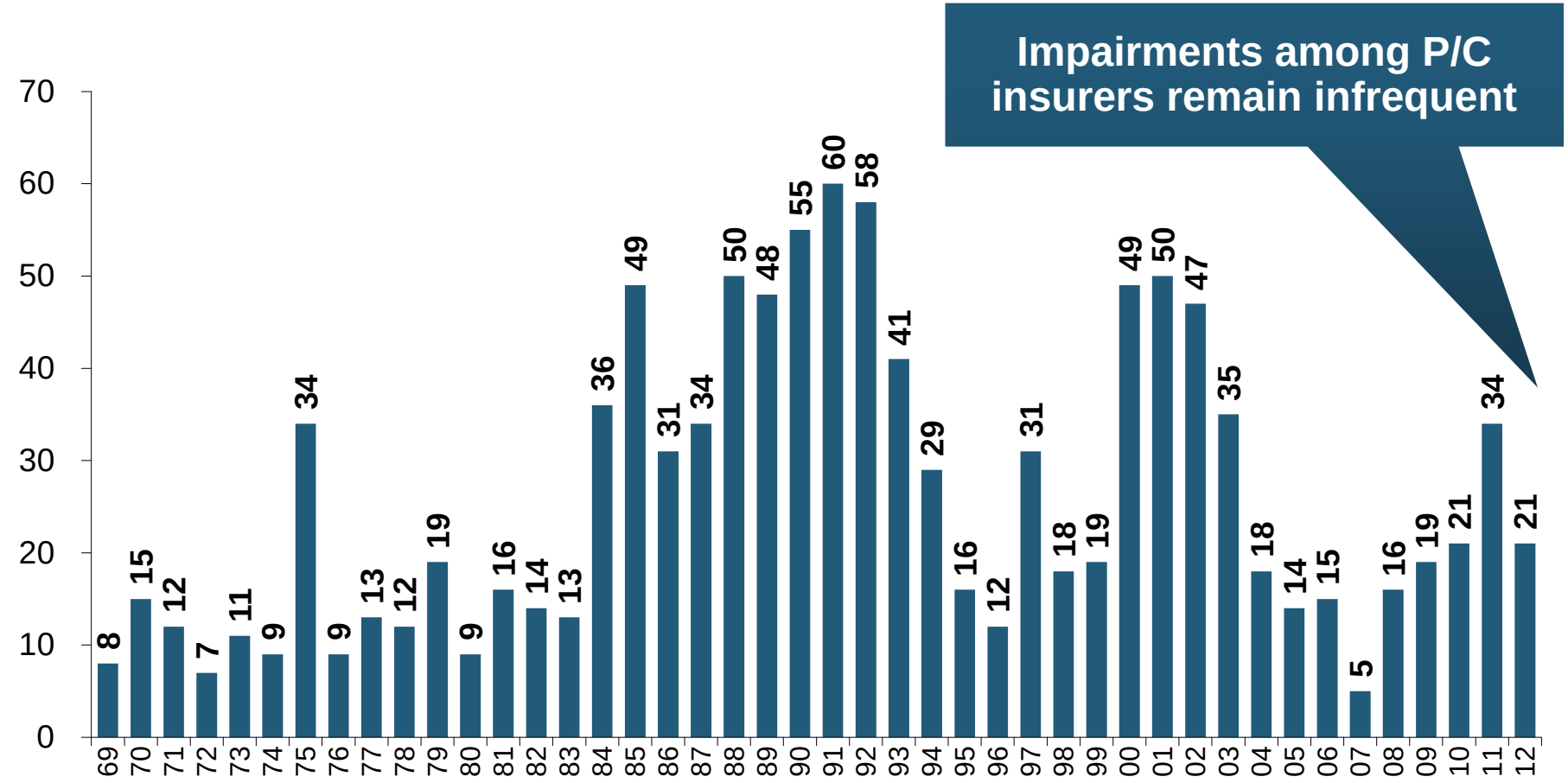
Financial Strength & Underwriting

Cyclical Pattern is P-C Impairment History is Directly Tied to Underwriting, Reserving & Pricing

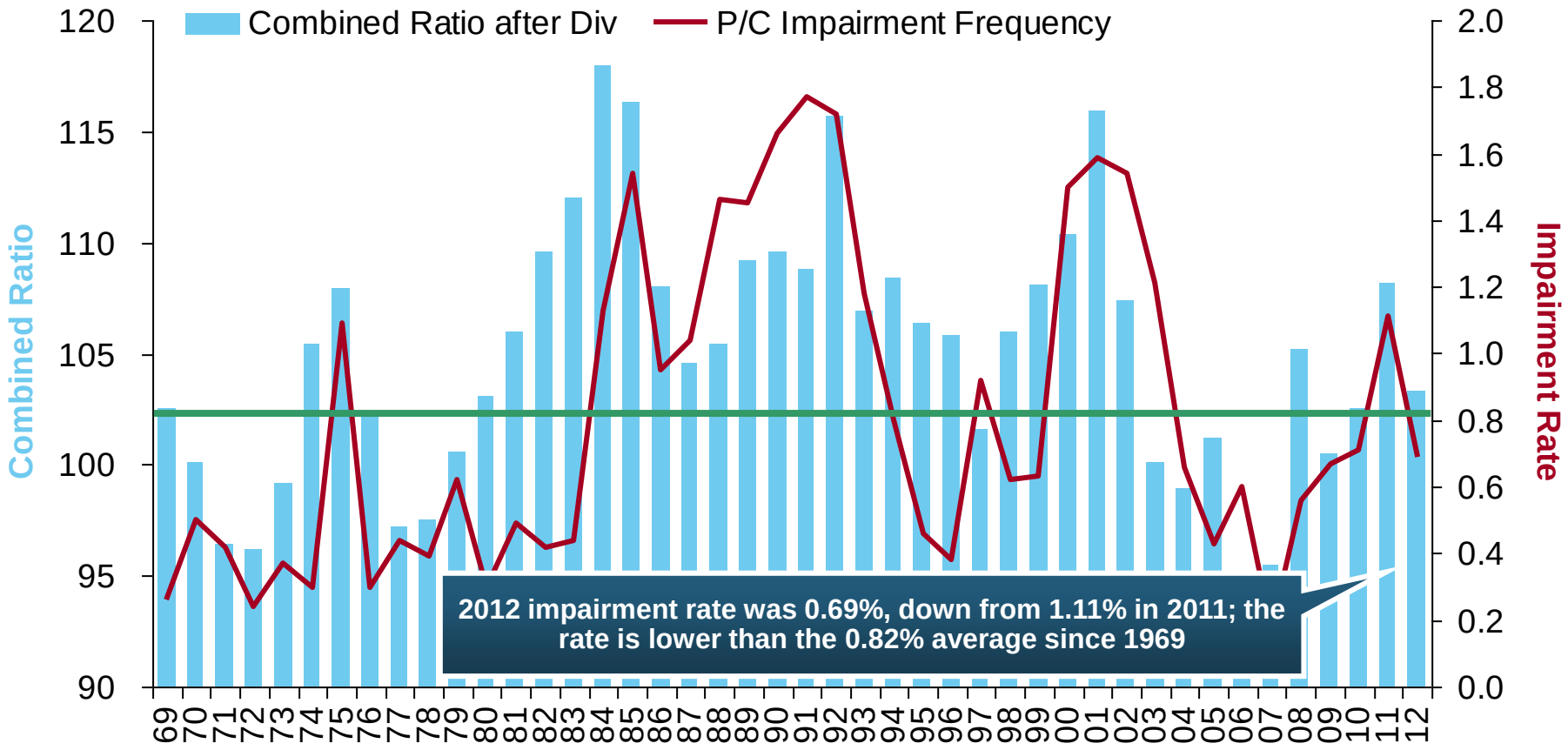
P/C Insurer Impairments, 1969–2012



The Number of Impairments Varies Significantly Over the P/C Insurance Cycle, With Peaks Occurring Well into Hard Markets

Source: A.M. Best Special Report "Pace of P/C Impairments Slowed in 2012; Auto Writers, RRGs Continued to Struggle," June 2013; Insurance Information Institute.

P/C Insurer Impairment Frequency vs. Combined Ratio, 1969-2012

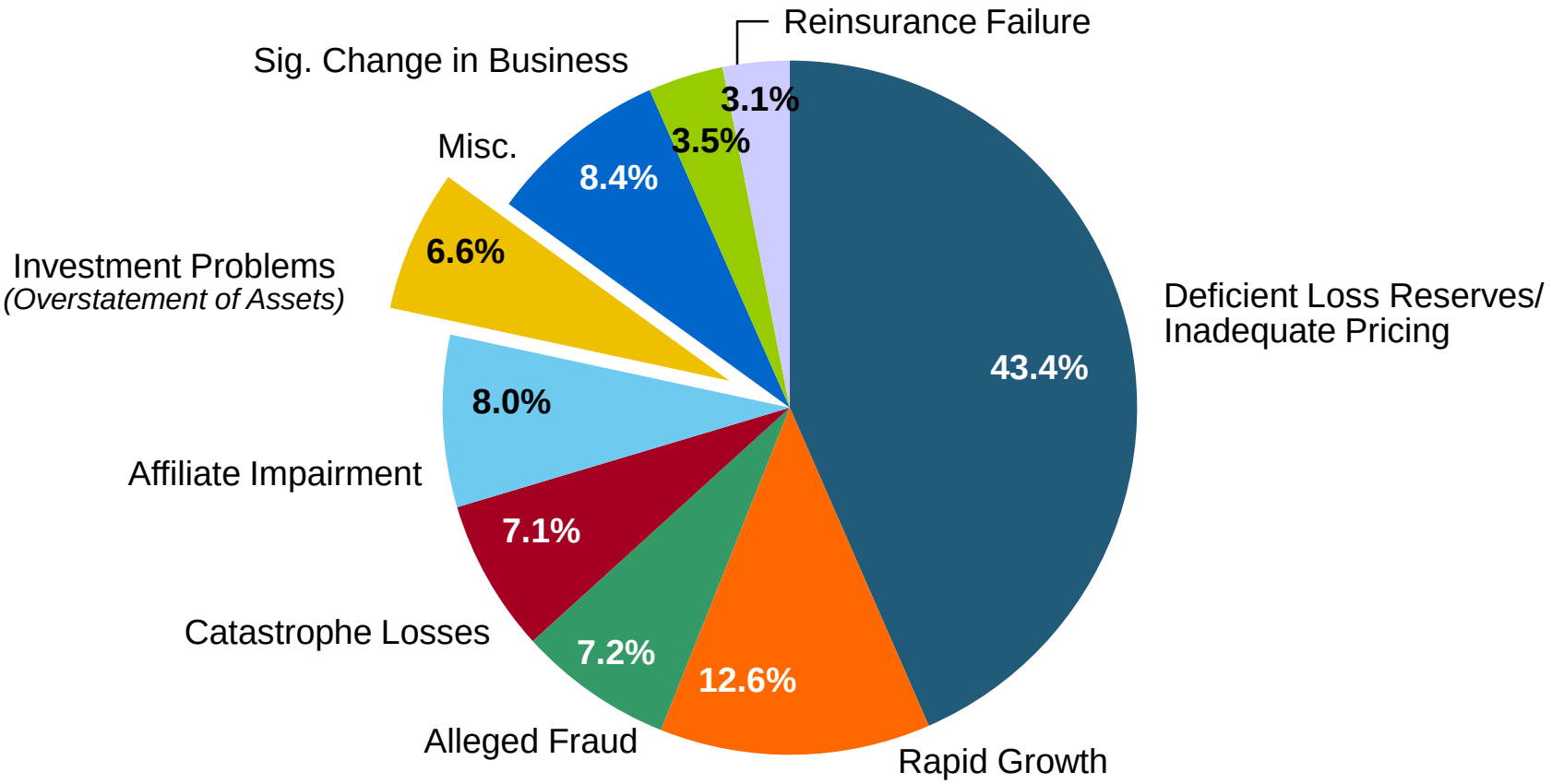


Impairment Rates Are Highly Correlated With Underwriting Performance and Reached Record Lows in 2007; Recent Increase Was Associated Primarily With Mortgage and Financial Guaranty Insurers and Not Representative of the Industry Overall

Source: A.M. Best; Insurance Information Institute

Reasons for US P/C Insurer Impairments, 1969–2012

Historically, Deficient Loss Reserves and Inadequate Pricing Are By Far the Leading Cause of P-C Insurer Impairments. Investment and Catastrophe Losses Play a Much Smaller Role

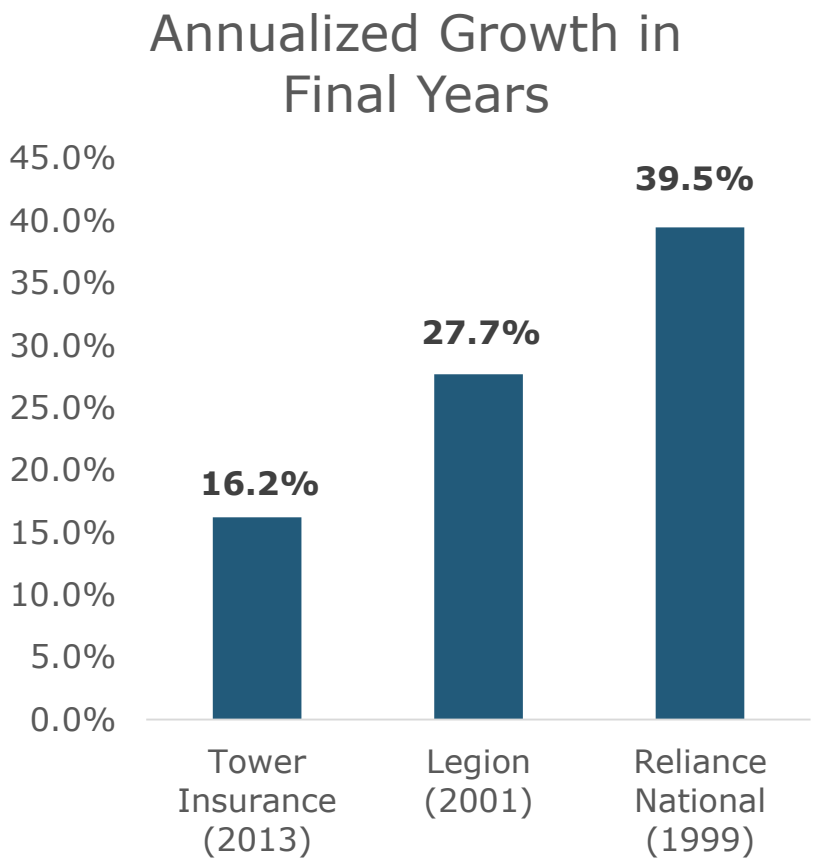


Source: A.M. Best Special Report "Pace of P/C Impairments Slowed in 2012; Auto Writers, RRGs Continued to Struggle," June 2013; Insurance Information Institute.

Rapid Growth 'A Leading Cause' of Impairment'

"The leading causes of impairment are deficient loss reserves (inadequate pricing) and **rapid growth**, together comprising more than 50 percent of annual impairments."

- A.M. Best, 2013



Source: SNL Financial, Insurance Information Institute.

Top 10 Lines of Business for US P/C Impaired Insurers, 2000–2012

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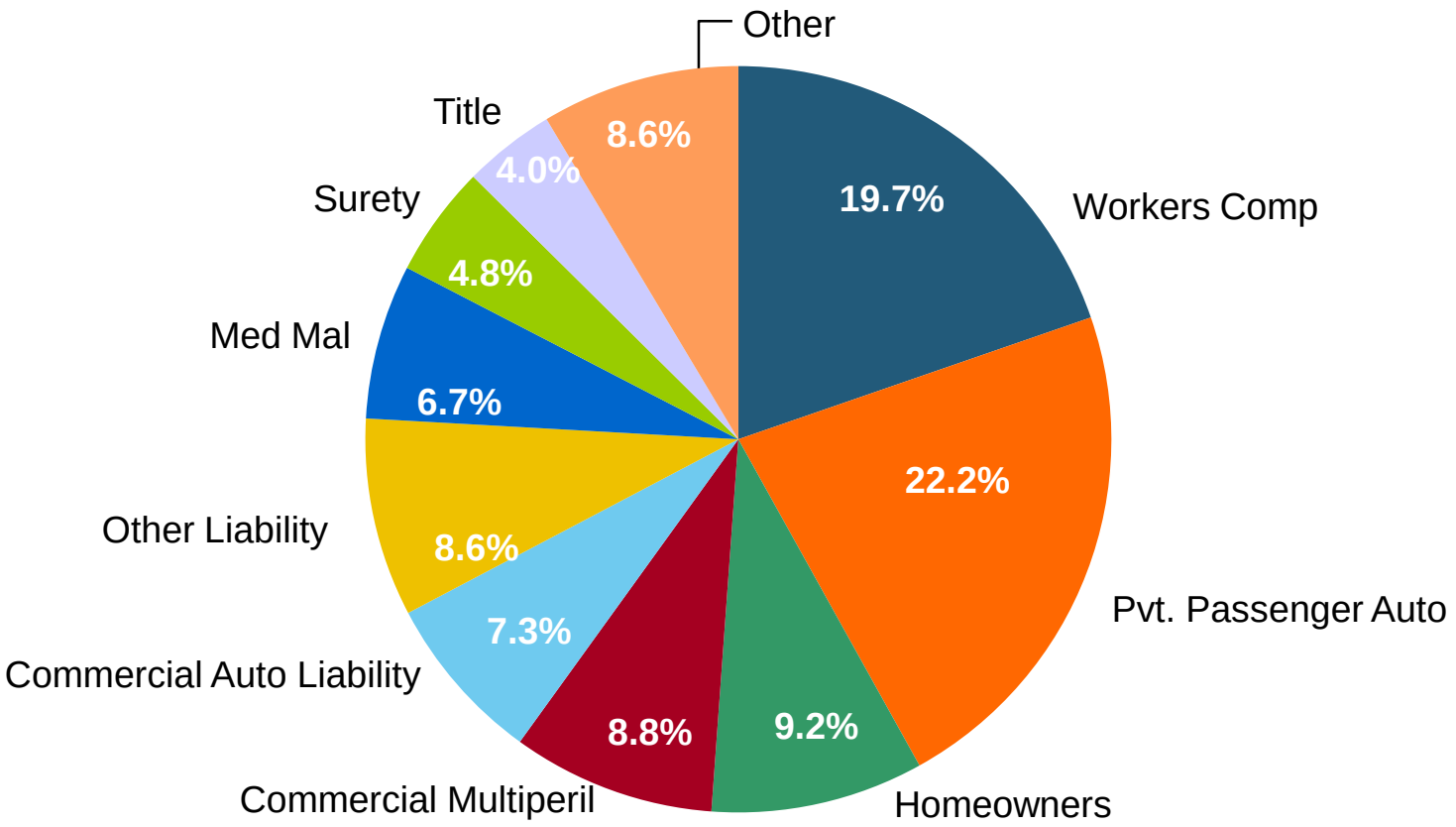
Workers Comp and Pvt. Passenger Auto Account for More Than 40 Percent of the Impaired Insurers Since 2000



Source: A.M. Best Special Report "Pace of P/C Impairments Slowed in 2012; Auto Writers, RRGs Continued to Struggle," June 2013; Insurance Information Institute.

Insurance Information Institute Online:

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Thank you for your time and your attention!

Twitter: twitter.com/bob_hartwig